

The Awareness of the Implementation of the Solid Waste Management Program in the Municipality of Tigaon, Province of Camarines Sur

Maria Ailyn Cielos Colina¹

¹School of Graduate Studies, University of Northeastern Philippines

ARTICLE INFORMATION	ABSTRACT
Article history: Published: October 2026 Keywords: Awareness Participation Perceived Solid-Waste Program Implementation Questionnaire Kendall Concordance Tigaon	The study examined awareness, participation, and perceived solid-waste program implementation in the Municipality of Tigaon, Province of Camarines Sur during Fiscal Year 2025. A descriptive-evaluative-correlational design used a researcher-made questionnaire with 246 respondents described as business establishments, barangay officials, and the municipal environmental officer. Weighted means and ranks described the indicators; Kendall's coefficient of concordance and corresponding chi-square tests assessed agreement at 0.05. The reported indicators of awareness and participation were classified as Very Much Evident, and those of program implementation as Very Much Implemented. Significant agreement was reported for Awareness of Roles and Responsibilities; Participation in Decision-Making Process; Voluntary Involvement in Environmental Initiatives; Advocacy and Information Sharing. Awareness of Environmental Impact did not show significant reported agreement. For program implementation, significant agreement was reported for Waste Segregation Practices; Waste Collection System; Facilities and Infrastructure; Enforcement of Policies and Regulations. Information and Education Campaign (IEC) did not show significant reported agreement. The findings identify local priorities for professional support and implementation review. They concern perceptions and rankings rather than independently verified improvement or causal effects. Incomplete measurement details and unresolved reporting issues constrain interpretation.

1. Introduction

Solid-waste management combines household and business behavior, collection arrangements, facilities, information, and institutional responsibilities. Awareness of environmental harm is relevant, but it does not by itself establish participation in decisions or consistent segregation. The study examined awareness and participation alongside perceived implementation in Tigaon. Separating these domains helps identify whether favorable recognition of a program is accompanied by equally favorable ratings of its operational components.

The awareness domains concerned environmental impact, roles, decision-making, voluntary involvement, and advocacy. The implementation domains concerned segregation, collection, information and education, infrastructure, and enforcement. The study therefore covered both community-facing and service-delivery concerns. Its evidence consists of questionnaire ratings, not a waste-composition analysis, collection-route audit, facility inspection, or measured diversion rate.

Republic Act No. 9003 (2001), the Ecological Solid Waste Management Act of 2000, provides a relevant Philippine policy context for segregation, collection, public participation, and education. The study was not a legal compliance audit, and favorable survey ratings do not certify compliance with every provision. Kaza et al. (2018) situate solid-waste management within interconnected technical, financial, and institutional systems, making service arrangements relevant alongside public awareness.

The local contribution is a stakeholder-rated profile for Fiscal Year 2025 and reported agreement on the ordering of indicators. The participant description combines establishments and officials, so the exact unit of participation and representation requires clarification. The findings should not be read as a probability estimate of all residents' awareness or as objective proof of municipal environmental performance.

2. Purpose and research questions

The study addressed the extent of awareness and participation across Awareness of Environmental Impact; Awareness of Roles and Responsibilities; Participation in Decision-Making Process; Voluntary Involvement in Environmental Initiatives; Advocacy and Information Sharing; agreement on their indicator rankings; the extent of program implementation across Waste Segregation Practices; Waste Collection System; Information and Education Campaign (IEC); Facilities and Infrastructure; Enforcement of Policies and Regulations; agreement on those rankings; and policy recommendations based on the findings. The reported null hypotheses concerned the absence of significant rank agreement. The title and substantive focus are retained while the interpretation is limited to the analyses actually reported. Examining extent and agreement together separates the magnitude of a rating from the ordering of its components. Respondents may rate every statement favorably while differing in which they prioritize. Conversely, concordant rankings can coexist with less favorable ratings. The study therefore treats descriptive profiles and inferential comparisons as complementary evidence, without using one as a substitute for the other.

3. Methods

3.1 Design and participants

The study used descriptive-evaluative-correlational methods in the Municipality of Tigaon, Province of Camarines Sur for Fiscal Year 2025. The reported participant group comprised 246 respondents described as business establishments, barangay officials, and the municipal environmental officer. The descriptive component assessed the listed practices and outcomes; the evaluative component concerned their rated extent. The reported inferential component assessed agreement on indicator rankings. No separate participant-level correlation or regression between the two sets of domain scores was presented.

Sampling procedures, the eligible population, recruitment, response rate, exact administration dates, and demographic distribution were not reported. References to respondent groups do not provide a documented allocation of the participant total. No subgroup counts are inferred. The findings concern the participating group and do not provide a probability-based estimate for a wider population. The respondent description combines business establishments and public officials. The number of establishments represented, the identity of their representatives, and subgroup counts were not specified. The total is retained without treating an establishment and a person as automatically interchangeable units. No observed waste-performance dataset was reported.

3.2 Instrument and operational definitions

The main instrument was a researcher-made questionnaire covering 10 domains. The reconstructed findings below preserve the listed indicator statements, mean values, and interpretation labels. Numerical rankings, overall means, and group-specific values have not been invented where they were not reported. The categories describe the study's operational measure rather than a standardized diagnostic or performance scale.

The complete response anchors, interpretation intervals, instrument-validation process, pilot sample, and reliability coefficients were not supplied. A favorable verbal classification is retained without reconstructing a five-point response scale from the observed means. The number of statements in a summary does not by itself establish the number administered. Any incomplete or repeated entries remain visible rather than being repaired through assumption.

3.3 Procedures and ethical reporting

Questionnaire distribution, administration mode, retrieval, missing-response handling, individual consent, confidentiality safeguards, ethics approval, and data-retention procedures were not specified. These steps are not presumed to have occurred. The study is reported through aggregate findings without adding personal information. Missing documentation is identified separately for author review before further inferential interpretation.

No new fieldwork or reconstruction of individual responses was undertaken. The reporting process preserves aggregate values and distinguishes them from proposed actions. Consequently, the manuscript cannot add standard errors, confidence intervals, missing-data estimates, or participant characteristics that were not provided. The limitations of the available evidence are part of the interpretation of the study, not evidence that an unreported procedure was performed incorrectly.

3.4 Statistical analysis

Weighted means, frequency counts, percentages, ranks, Kendall's coefficient of concordance, W, and corresponding chi-square tests were identified as analytical tools. Significance was set at 0.05. The test tables retain reported W values, chi-square values, probability inequalities, and decisions. Probability inequalities are not exact p values. No unreported probability or corrected calculation has been substituted.

Kendall concordance concerns similarity in the ordering of statements across ranking groups. It does not estimate an association between a practice score and an outcome score, and it does not establish a causal effect. A nonsignificant result means that the reported procedure did not establish significant agreement; it is not proof of no agreement, equivalent groups, or low skill. These distinctions are maintained throughout the results.

The full ranking matrices, degrees of freedom, treatment of ties, and unrounded calculations were not supplied. Three groups are mentioned in some research questions or result summaries, but group composition and counts are insufficiently documented. The inferential results are reproduced as reported and should be verified against the complete statistical output before further inferential interpretation.

The respondent description gives 246 business establishments, barangay officials, and the municipal environmental officer without subgroup counts or an exact unit-of-analysis definition. No number of residents, establishments per representative, or group allocation has been inferred.

4. Results

4.1 Awareness of Environmental Impact

Table 1. Awareness of Environmental Impact

Indicator	Weighted mean
Recognizes that proper solid waste management contributes to long-term environmental sustainability	4.98
Demonstrates knowledge of appropriate and responsible waste disposal practices	4.97
Understands how minimizing plastic and non-biodegradable waste protects ecosystems	4.97
Understands how proper waste management promotes public health and safety	4.97
Recognizes that effective solid waste management helps reduce environmental pollution	4.97
Appreciates the role of proper waste practices in reducing climate change effects	4.96
Understands the importance of proper waste segregation in protecting the environment	4.96
Values maintaining cleanliness and sanitation for a healthier community environment	4.96
recognizes the environmental benefits of recycling and waste reduction practices	4.95

Note. All listed statements were classified as Very Much Evident. Values and order are retained; no numerical ranks or category average have been inferred.

Table 1 presents awareness of environmental impact indicators. The displayed means range from 4.95 to 4.98. The reported classification is Very Much Evident. These figures describe the rated extent of the statements; differences of a few hundredths are not independently tested differences between items.

Recognition of sustainability was prominent, while recycling benefits were relatively lower within a favorable range. Awareness does not establish the frequency of actual disposal behavior or environmental outcomes. The nonsignificant concordance finding concerns the order of these statements. It does not imply that stakeholders were unaware of environmental consequences.

4.2 Awareness of Roles and Responsibilities

Table 2. Awareness of Roles and Responsibilities

Indicator	Weighted mean
Demonstrates awareness of personal responsibility in practicing proper waste segregation and disposal	4.96
Acknowledges the role of households in maintaining cleanliness and environmental sustainability	4.96
Acknowledges the role of local government units in implementing solid waste management programs	4.96
Practices vigilance in reporting improper waste disposal and environmental violations	4.95
Supports cooperation with community waste management initiatives and programs	4.95
Emphasizes the importance of active participation in solid waste management activities in the community	4.94
Adheres to established waste management policies and regulations	4.94
Exemplifies responsible environmental behavior as a role model in the community	4.94
Emphasizes the importance of active participation in solid waste management activities in the community	4.94
values collaboration among community members in achieving effective waste management	4.89

Note. All listed statements were classified as Very Much Evident. Values and order are retained; no numerical ranks or category average have been inferred.

Table 2 presents awareness of roles and responsibilities indicators. The displayed means range from 4.89 to 4.96. The reported classification is Very Much Evident. These figures describe the rated extent of the statements; differences of a few hundredths are not independently tested differences between items.

Personal responsibility was rated above collaboration among community members. Understanding one's own duty and coordinating shared responsibilities are distinct concerns. The profile supports clarifying how roles connect across institutions and households. It does not establish that responsibilities were fulfilled consistently or that statutory obligations were audited.

4.3 Participation in Decision-Making Process

Table 3. Participation in Decision-Making Process

Indicator	Weighted mean
Actively participates in discussions related to solid waste management plans and activities	4.85
Shares ideas and suggestions to improve solid waste management practices in the community	4.85
Engages in community meetings focused on environmental and waste management concerns	4.85
Values involvement in planning and organizing solid waste management programs	4.85
Contributes to decision-making processes regarding waste management initiatives	4.82
Expresses opinions on policies and strategies related to solid waste management	4.73
Supports participatory approaches in developing solid waste management programs	4.72
Demonstrates willingness to be involved in evaluating and improving waste management decisions	4.72
collaborates with community members and leaders in making decisions about waste management activities	4.71

Note. All listed statements were classified as Very Much Evident. Values and order are retained; no numerical ranks or category average have been inferred.

Table 3 presents participation in decision-making process indicators. The displayed means range from 4.71 to 4.85. The reported classification is Very Much Evident. These figures describe the rated extent of the statements; differences of a few hundredths are not independently tested differences between items.

Participation in discussion was rated above collaboration in decisions. Being present or expressing a view does not necessarily mean influencing the final choice. The findings support examining opportunities for meaningful involvement, while providing no attendance records or decision-tracing evidence. They cannot determine how representative stakeholder participation was.

4.4 Voluntary Involvement in Environmental Initiatives

Table 4. Voluntary Involvement in Environmental Initiatives

Indicator	Weighted mean
Participates actively in community clean-up activities and environmental campaigns	4.76
Engages in tree planting and other environmental conservation initiatives,	4.76
Volunteers in programs related to waste segregation, recycling, and environmental protection	4.75
Initiates or joins environmental projects that promote proper waste management	4.74
Demonstrates willingness to assist in organizing environmental and waste management activities	4.73
Contributes time and effort to activities that support community sanitation and cleanliness	4.67

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Indicator	Weighted mean
Supports and participates in barangay-led environmental programs and activities	4.66
Participates in training sessions, seminars, or workshops related to environmental protection	4.66
Encourages others to take part in environmental initiatives and waste management efforts	4.65
sustains involvement in environmental initiatives that promote long-term cleanliness and sustainability	4.64

Note. All listed statements were classified as Very Much Evident. Values and order are retained; no numerical ranks or category average have been inferred.

Table 4 presents voluntary involvement in environmental initiatives indicators. The displayed means range from 4.64 to 4.76. The reported classification is Very Much Evident. These figures describe the rated extent of the statements; differences of a few hundredths are not independently tested differences between items.

Participation in clean-up activities was more prominent than sustained involvement. Occasional events and continuing environmental practice impose different demands on participants. The ordering supports attention to continuity and follow-through. No activity logs, retention rates, or observed waste-reduction outcomes verify how participation was sustained over the fiscal year.

4.5 Advocacy and Information Sharing

Table 5. Advocacy and Information Sharing

Indicator	Weighted mean
Supports information campaigns related to environmental protection and solid waste management	4.94
Engages in educating others about the benefits of proper waste management practices	4.92
Promotes awareness of solid waste management practices within the community	4.88
Shares information about proper waste segregation and disposal with others	4.88
Encourages community members to participate in waste management programs and activities	4.88
Participates in awareness campaigns that promote environmental responsibility	4.88
Disseminates environmental information through discussions, meetings, or social platforms	4.86
Advocates for the importance of reducing, reusing, and recycling waste materials	4.86
demonstrates initiative in spreading accurate and relevant information on waste management practices	4.86

Note. All listed statements were classified as Very Much Evident. Values and order are retained; no numerical ranks or category average have been inferred.

Table 5 presents advocacy and information sharing indicators. The displayed means range from 4.86 to 4.94. The reported classification is Very Much Evident. These figures describe the rated extent of the statements; differences of a few hundredths are not independently tested differences between items.

Supporting campaigns was rated above independently spreading accurate information. Endorsement and active advocacy differ in initiative and responsibility. The findings support reviewing how stakeholders obtain and communicate reliable guidance. They do not measure campaign reach, message accuracy in practice, or changes in behavior caused by information sharing.

Table 6. Reported concordance for awareness and participation

Domain	W	χ^2	Reported p	Decision
Awareness of Environmental Impact	0.50	12	p>0.05	Not rejected
Awareness of Roles and Responsibilities	0.85	22.95	p<0.01	Rejected
Participation in Decision-Making Process	0.88	21.12	p<0.01	Rejected
Voluntary Involvement in Environmental Initiatives	0.92	24.84	p<0.005	Rejected
Advocacy and Information Sharing	0.67	16.08	p<0.05	Rejected

Note. All statistics and probability inequalities are retained as reported. Not rejected expresses a stated exception to rejection; it does not establish equivalence.

Table 6 reports significant agreement for Awareness of Roles and Responsibilities; Participation in Decision-Making Process; Voluntary Involvement in Environmental Initiatives; Advocacy and Information Sharing. The exceptions were Awareness of Environmental Impact. The test concerns indicator ordering. It does not determine which domain was most effective, establish the magnitude of improvement, or demonstrate an association between the two sets of constructs.

Comparisons of chi-square magnitudes require attention to the number of indicators and degrees of freedom; they are not a common scale of educational or organizational value. The practical interpretation is therefore to examine the content of the ratings alongside the reported agreement. Any unresolved calculation or transcription issue limits confidence in the inferential classification until the underlying output is checked.

4.6 Waste Segregation Practices

Table 7. Waste Segregation Practices

Indicator	Weighted mean
Stakeholders strictly follow local guidelines and regulations on waste segregation	4.89
Regular monitoring is conducted by authorities to ensure compliance with segregation practices	4.87
Information and education campaigns (IEC) on proper waste segregation are effectively implemented	4.87
Stakeholders demonstrate knowledge and awareness of proper waste segregation procedures	4.86
Materials Recovery Facilities (MRFs) are used to further sort and process segregated waste	4.86
Penalties and incentives are implemented to encourage compliance with proper waste segregation practices	4.86

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Indicator	Weighted mean
Waste materials are separated at the source (households, establishments, and offices) before collection	4.80
Designated and clearly labeled waste bins for different types of waste are available in strategic areas	4.78
proper segregation of waste into biodegradable, non-biodegradable, recyclable, and hazardous categories is consistently practiced	4.77

Note. All listed statements were classified as Very Much Implemented. Values and order are retained; no numerical ranks or category average have been inferred.

Table 7 presents waste segregation practices indicators. The displayed means range from 4.77 to 4.89. The reported classification is Very Much Implemented. These figures describe the rated extent of the statements; differences of a few hundredths are not independently tested differences between items.

Following guidelines was rated above consistent separation by waste category. This distinguishes an overall compliance perception from a concrete routine. The result supports checking the practical steps of segregation, but no waste audit or observation establishes contamination rates or actual sorting quality. Favorable ratings should not be treated as certified compliance.

4.7 Waste Collection System

Table 8. Waste Collection System

Indicator	Weighted mean
Collection schedules are clearly communicated to households and business establishments	4.93
A regular and scheduled waste collection system is consistently followed in all barangays	4.89
Waste collection vehicles are available and sufficient to serve all areas of the municipality	4.87
Collection personnel strictly follow proper handling and safety procedures during waste collection	4.87
There is timely and efficient collection of waste, preventing accumulation in residential and commercial areas	4.86
Collection routes are well-planned and systematically implemented to ensure full coverage of all barangays	4.86
Special collection services are available for hazardous or bulky waste materials	4.85
Monitoring and supervision of waste collection activities are regularly conducted by authorities	4.85
Complaints and issues regarding waste collection are promptly addressed by responsible offices	4.84
waste is collected separately according to type (biodegradable, non-biodegradable, recyclable, and hazardous)	4.75

Note. All listed statements were classified as Very Much Implemented. Values and order are retained; no numerical ranks or category average have been inferred.

Table 8 presents waste collection system indicators. The displayed means range from 4.75 to 4.93. The reported classification is Very Much Implemented. These figures describe the rated extent of the statements; differences of a few hundredths are not independently tested differences between items.

Communication of schedules was more prominent than separate collection by waste type. A known collection time does not ensure that segregation is maintained during transport. The profile supports examining continuity from source to collection. No route records, missed-service data, or vehicle observations establish the operational reliability of the system.

4.8 Information and Education Campaign (IEC)

Table 9. Information and Education Campaign (IEC)

Indicator	Weighted mean
IEC activities effectively increase stakeholders' knowledge, awareness, and participation in the Solid Waste Management Program	4.95
Use of media platforms (e.g., social media, radio, announcements) is utilized to promote waste management awareness	4.94
Regular Information and Education Campaign (IEC) activities on solid waste management are conducted in the municipality	4.93
Training and seminars on solid waste management practices are provided to stakeholders	4.92
Business establishments are informed and oriented regarding their roles and responsibilities in solid waste management	4.92
Schools and educational institutions actively participate in environmental awareness programs	4.92
IEC materials such as posters, flyers, and brochures on proper waste management are widely distributed	4.91
Awareness campaigns on waste segregation, recycling, and proper disposal are effectively implemented	4.91
Barangay-level orientations and meetings on waste management are regularly conducted	4.90

Note. All listed statements were classified as Very Much Implemented. Values and order are retained; no numerical ranks or category average have been inferred.

Table 9 presents information and education campaign (iec) indicators. The displayed means range from 4.90 to 4.95. The reported classification is Very Much Implemented. These figures describe the rated extent of the statements; differences of a few hundredths are not independently tested differences between items.

Perceived campaign contribution was rated above regular barangay orientations. A favorable view of a campaign and consistent local delivery are different indicators. Nonsignificant concordance does not demonstrate campaign failure. The study did not measure audience exposure, knowledge change, or causal effects on participation, so communication outcomes remain unverified.

4.9 Facilities and Infrastructure

Table 10. Facilities and Infrastructure

Indicator	Weighted mean
Appropriate equipment (e.g., protective gear, tools) is provided to waste management personnel	4.83
Collection vehicles and equipment are available and well-maintained for efficient waste transport	4.82
Infrastructure supports the proper segregation, collection, processing, and disposal of waste	4.82
There is adequate allocation of budget and resources for the development and maintenance of waste management facilities and infrastructure	4.82
Designated waste storage areas or transfer stations are properly constructed and utilized	4.81
Existing facilities are regularly maintained and upgraded to improve operational efficiency	4.77
Adequate number of Material Recovery Facilities (MRFs) are established and operational in the municipality	4.75
Recycling and composting facilities are functional and regularly utilized by the community	4.75
Waste segregation bins (biodegradable, non-biodegradable, recyclable, hazardous) are sufficiently provided in public areas	4.74
Facilities for the safe disposal of hazardous waste are available and accessible	4.67

Note. All listed statements were classified as Very Much Implemented. Values and order are retained; no numerical ranks or category average have been inferred.

Table 10 presents facilities and infrastructure indicators. The displayed means range from 4.67 to 4.83. The reported classification is Very Much Implemented. These figures describe the rated extent of the statements; differences of a few hundredths are not independently tested differences between items.

Protective equipment was rated above access to hazardous-waste disposal facilities. Personnel protection and specialized disposal address different parts of the service chain. The findings support reviewing both without assuming that any site was unsafe or unauthorized. Facility capacity, accessibility, and compliance were not independently inspected.

4.10 Enforcement of Policies and Regulations

Table 11. Enforcement of Policies and Regulations

Indicator	Weighted mean
Designated enforcement personnel or officers are present, active, and visible in the community	4.85
Local ordinances on solid waste management are effectively implemented and enforced within the municipality	4.84
Residents and establishments comply with prescribed waste collection schedules and disposal procedures	4.84
Enforcement efforts are consistently applied across all barangays or areas within the municipality	4.84
Strict enforcement of waste segregation policies is observed among households, institutions, and establishments	4.83
Penalties and sanctions for violations (e.g., littering, illegal dumping, non-segregation) are consistently imposed	4.83
Regular monitoring and inspection activities are conducted to ensure compliance with solid waste management regulations	4.82
There is strong coordination among local government units and enforcement agencies in implementing waste management policies	4.82
cases of illegal dumping and improper waste disposal are promptly identified and addressed	4.72

Note. All listed statements were classified as Very Much Implemented. Values and order are retained; no numerical ranks or category average have been inferred.

Table 11 presents enforcement of policies and regulations indicators. The displayed means range from 4.72 to 4.85. The reported classification is Very Much Implemented. These figures describe the rated extent of the statements; differences of a few hundredths are not independently tested differences between items.

Visible enforcement personnel were rated above prompt responses to dumping. Presence and effective case resolution are distinct aspects of implementation. The profile supports examining reporting and follow-through rather than equating visibility with enforcement outcomes. The study supplied no incident records, response times, or legal compliance determinations.

Table 12. Reported concordance for program implementation

Domain	W	χ^2	Reported p	Decision
Waste Segregation Practices	0.88	21.12	p<0.01	Rejected
Waste Collection System	0.81	21.87	p<0.01	Rejected
Information and Education Campaign (IEC)	0.63	15.12	p>0.05	Not rejected
Facilities and Infrastructure	0.89	24.03	p<0.005	Rejected
Enforcement of Policies and Regulations	0.87	20.88	p<0.01	Rejected

Note. All statistics and probability inequalities are retained as reported. Not rejected expresses a stated exception to rejection; it does not establish equivalence.

Table 12 reports significant agreement for Waste Segregation Practices; Waste Collection System; Facilities and Infrastructure; Enforcement of Policies and Regulations. The exceptions were Information and Education Campaign (IEC). The test concerns indicator ordering. It does not determine which domain was most effective, establish the magnitude of improvement, or demonstrate an association between the two sets of constructs.

Comparisons of chi-square magnitudes require attention to the number of indicators and degrees of freedom; they are not a common scale of educational or organizational value. The practical interpretation is therefore to examine the content of the ratings alongside the reported agreement. Any unresolved calculation or transcription issue limits confidence in the inferential classification until the underlying output is checked.

5. Discussion

5.1 Meaning of the descriptive profile

The study reported favorable ratings across awareness and participation and program implementation. The detailed tables nevertheless distinguish specific practices and behaviors rather than establishing a uniformly successful process. The most useful application is to examine what the relatively lower statements require in everyday practice. A high category rating does not establish that every participant had the same experience or that all implementation conditions were equally supportive.

The within-domain patterns are exploratory and descriptive. The displayed precision allows exact transcription but should not be confused with evidence that small mean differences are practically important. Without response distributions and variability estimates, it is not possible to determine whether a narrow range reflects genuinely similar experience, restricted response options, or a tendency to endorse favorable statements. The interpretation therefore remains tied to the content and type of measurement.

The policy context of Republic Act No. 9003 (2001) and the system perspective of Kaza et al. (2018) support examining awareness alongside collection, infrastructure, and institutional responsibilities. For Tigaon, the survey profile identifies perceptions of those connections. It does not establish compliance, measured waste diversion, or a causal effect of information campaigns.

5.2 Agreement and the research questions

The reported agreement results address a narrower question than the title's practical purpose. For awareness and participation, significant agreement was reported for Awareness of Roles and Responsibilities; Participation in Decision-Making Process; Voluntary Involvement in Environmental Initiatives; Advocacy and Information Sharing. For program implementation, it was reported for Waste Segregation Practices; Waste Collection System; Facilities and Infrastructure; Enforcement of Policies and Regulations. These findings describe the ordering of indicators under the reported procedure. They do not establish which practice explains individual differences in outcomes, nor do they demonstrate that changing one domain would improve another.

Nonsignificant domains should not automatically become deficit labels. They may reflect differences in relative emphasis even when ratings are uniformly high. Similarly, significant domains are not necessarily the strongest priorities for intervention. Priority setting should consider the importance of the behavior, actual implementation conditions, and the evidence needed to understand a problem. The test classification alone does not supply those judgments.

5.3 Implications for practice and policy

The study proposed strengthening information and education campaigns, environmental workshops, community involvement, facilities, monitoring, and coordination among municipal and barangay offices and other stakeholders. These are proposed responses to the ratings, not documented policy effects or verified compliance outcomes.

A defensible next step is to review the findings with relevant stakeholders and compare the questionnaire statements with actual examples of practice. Such review can clarify what respondents understood, identify usable resources, and distinguish shared priorities from context-specific needs. This would extend the study rather than represent data already collected. Proposed actions should have explicit objectives and indicators before their effectiveness is evaluated.

Implementation should also include attention to access, workload, and the quality of support. Standardizing a form or activity does not by itself establish that participants can use it meaningfully. The findings provide a basis for discussing those conditions, but not for prescribing an identical response to every school or stakeholder group. The study did not compare alternative policy packages or estimate their costs and benefits.

6. Conclusion

The study reported favorable extent ratings for awareness and participation and program implementation among 246 respondents described as business establishments, barangay officials, and the municipal environmental officer in the Municipality of Tigaon, Province of Camarines Sur. Significant agreement was reported for Awareness of Roles and Responsibilities; Participation in Decision-Making Process; Voluntary Involvement in Environmental Initiatives; Advocacy and Information Sharing in the first set and Waste Segregation Practices; Waste Collection System; Facilities and Infrastructure; Enforcement of Policies and Regulations in the second. The nonsignificant exceptions in the first set were Awareness of Environmental Impact. The nonsignificant exceptions in the second set were Information and Education Campaign (IEC). These conclusions concern reported extent and rank concordance.

The findings support consideration of the proposed professional and implementation priorities. They do not establish causal effectiveness, individual mastery, or verified improvement. Completing the missing methodological details and resolving the identified reporting issues are necessary before stronger explanatory claims. The title and study purpose are retained without expanding the evidence beyond the reported design.

References

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