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IMPLEMENTATION OF NATIONAL GREENING PROGRAM IN CAGAYAN DE ORO CITY

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ABSTRACT

The National Greening Program (NGP) was established in Philippine public schools to advance environmental education and sustainability through projects including the Gulayan sa Paaralan Project, Ecological Solid Waste Management, and Tree Growing and Caring. The study determined the level of National Greening Program implementation among teachers of Cagayan de Oro City Division; School Year 2024-2025. Specifically, the study aimed to describe the respondents characteristics; find out the respondents level of National Greening Program implementation; and the relationship between the respondents' National Greening Program implementation and each of their characteristics. The participants consisted of 241 public secondary teachers from the aforesaid division. A stratified sampling technique was employed to select the participants and it made use of descriptive correlational method of research. The instrument used in this study was a researcher - made. Furthermore, descriptive statistics such as frequency, percentage, mean and SD were used to describe the variables in the study. Indeed, Pearson Correlation (r) was also used to interpret and analyze data. The findings revealed that majority of the respondents were aged 30 years old and below, female, married, with 6-10 years of teaching experience and attended a district/school level training/seminars. The respondents exhibited a very positive attitude towards the implementation of National Greening Program. The level of implementation was very high such that the respondent have high regard in the implementation of the National Greening Program. It can be concluded that majority of the characteristics of the respondents significantly not affecting the National Greening Program of the Department of Education. This attitude towards the program affect its implementation process the school. Hence, it is recommended that the teachers should organize tree planting activities to promote responsibility and a sense of ownership among students and continue in maintaining good positive attitude towards the greening program.

Keywords: *implementation of national greening program*

Background of the Study

Governments and organizations were enacting policies that encourage conservation and climate change mitigation as a result of the growing global concern over environmental sustainability. Executive Order No. 26 s. 2011 created the National Greening Program (NGP) in the Philippines to promote sustainable land management, improve biodiversity, and combat deforestation. Through DepEd Order No. 5, s. 2014, the Department of Education (DepEd) formalized the program within the school system in recognition of the important role that education plays in promoting environmental awareness, requiring the adoption of school-based greening programs like Tree Growing and Caring, Ecological Solid Waste Management (ESWM), and the Gulayan sa Paaralan Project (GPP). These programs seek to encourage sustainable practices within the school community and instill a sense of environmental responsibility in both teachers and students.

Even with these policies in place, different schools implement National Greening Program to varying degrees, especially in urban areas like Cagayan de Oro City. In this highly urbanized setting, schools face particular difficulties, such as a lack of resources for planting and maintaining trees, a lack of space for gardening, and conflicting academic priorities that make it difficult to fully implement greening initiatives. Although teachers were essential to the success of these programs, their degree of involvement, training, and attitude toward the program have a big influence on how it was carried out. Determining the strengths, difficulties, and opportunities for development in advancing environmental sustainability in education requires an understanding of the current state of NGP implementation in public schools, specifically the degree to which the Gulayan sa Paaralan Project, Ecological Solid Waste Management, and Tree Growing and Caring are being implemented.

This study was grounded in legal mandates emphasizing environmental education and sustainability. Executive Order No. 26 (2011) established the NGP for reforestation and biodiversity preservation, later extended by EO No. 193 (2015) for climate change mitigation. While RA No. 9003 (2000) requires schools to implement waste

management practices, Republic Act No. 9512 (2008) mandates the inclusion of environmental education in the curriculum. DepEd Order No. 5 (2014) offers a structure for sustainability initiatives in schools. The government's dedication to environmental consciousness and the necessity of evaluating NGP implementation in schools are reflected in these laws.

Recent studies have explored how environmental programs were being implemented in schools, shedding light on both their benefits and the challenges they face. For instance, Santos and Garcia (2021) examined the *Gulayan sa Paaralan* Project, recognizing its role in promoting sustainability while also acknowledging the resource limitations and the need for better training. Similarly, Garcia et al. (2022) emphasized that strong community support and leadership play a crucial role in effective waste management. While many students and teachers actively participate in tree-planting activities, maintaining these trees over time remains a challenge (Dela Cruz & Fernandez, 2023). Lopez and Salazar (2020) underscored the importance of continuous training for educators to strengthen environmental education in schools. Additionally, Reyes (2023) found that teachers' proactive attitudes significantly contribute to the success of greening initiatives. These findings highlight the importance of continuous evaluation and policy improvements to ensure long-term sustainability. In particular, tree-planting efforts often struggle due to insufficient support and monitoring, making it essential to provide ongoing assistance and structured follow-ups.

The success of National Greening Program implementation in Cagayan de Oro City's public schools was still unknown, despite the existence of these policies and research-supported insights. The purpose of this study was to ascertain how well teachers in the Cagayan de Oro City Division implemented the National Greening Program during the School Year 2024–2025.

Literature and Related Studies

Implementation of National Greening Program

DepEd Order No. 5, s. 2014, increased the National Greening Program in all public schools nationwide as part of the government's environmental protection and climate change mitigation initiatives. *Gulayan sa Paaralan* Project, Ecological Solid Waste Management, and Tree Planting and Caring were program highlights. The *Gulayan sa Paaralan* Project teaches students about sustainable food production, nutrition, and environmental care. Ecological Solid waste Management promotes environmental responsibility in schools by segregating, reducing, recycling, and disposing of garbage in accordance with Republic Act No. 9003. Reforestation, biodiversity conservation, and climate resilience were the goals of Tree Planting and Caring. These initiatives link classroom learning to community-based environmental action and were environmental interventions.

Gulayan sa Paaralan Project

A study by Codilla Jr. et al. (2022) explored the adaptation of the GPP into innovative home-based livelihood gardening during the pandemic. The research highlighted that teachers exhibited a high level of awareness and positive attitudes toward integrating home-based gardening, which not only supplemented nutritional needs but also served as an additional source of livelihood. This adaptation underscores the flexibility and relevance of the GPP in promoting food security and practical agricultural education, even beyond the traditional school environment.

The study *Level of Implementation of Gulayan sa Paaralan: A Survey* (Department of Education [DepEd], 2020) examines the execution and impact of the *Gulayan sa Paaralan* Project in Philippine schools. Findings indicate that the program has significantly contributed to improving students' nutritional status while also providing valuable hands-on learning experiences. Through school-based gardening initiatives, students develop agricultural skills, environmental awareness, and a deeper understanding of food security.

The study *Gulayan sa Paaralan and Its Implication to Learners' Nutritional Status and Academic Performance* explores the effects of the *Gulayan sa Paaralan* Program on students' overall well-being. Findings reveal that students who actively participated in the program demonstrated better nutritional status and improved academic performance. By integrating sustainable gardening into the school curriculum, the program not only enhances students' dietary intake but also fosters responsibility, environmental awareness, and practical agricultural skills.

Ecological Solid Waste Management (ESWM)

The study *Solid Waste Management, Environmental Governance, and Sustainable Development* (Department of Environment and Natural Resources (2020) examines the implementation of the Ecological Solid Waste Management Act in the Philippines. The research highlights both the successes and challenges of solid waste management practices in various communities. It underscores the importance of local government participation, public awareness, and sustainable waste management strategies in achieving environmental sustainability and compliance with national policies.

Also Santos and Garcia (2021) explored the evolution of solid waste management practices over time. The research highlights that ongoing community engagement and education play a critical role in ensuring the long-term viability of solid waste management programs. The findings emphasize the need for continuous policy support, public participation, and capacity-building initiatives to enhance sustainability in urban waste management efforts.

In a similar findings, Nnonyelu and Dongjie (2024) found that effective waste management in schools is essential for reducing environmental and health risks. Key recommendations included improving waste management infrastructure, implementing educational programs, and fostering community engagement to enhance waste segregation, increase recycling rates, and promote long-term sustainability in educational institutions.

Tree Growing and Caring

Chazdon and Brancalion (2020) highlight the importance of community engagement in tree planting efforts, emphasizing that successful and sustainable reforestation projects depend on active local involvement and found that initiatives prioritizing people-centered natural climate solutions were more effective in achieving long-term environmental and social benefits. The research underscores the need for inclusive planning and community-driven strategies to enhance the impact of reforestation programs.

The Food and Agriculture Organization FAO (2021) highlights the significance of proper training and community involvement in the cultivation and utilization of poplars, willows, and other fast-growing trees. The study emphasizes that sustainable tree-planting initiatives require informed management practices to maximize ecological and economic benefits. By ensuring adequate training and active participation, communities can enhance the success and sustainability of reforestation projects.

The International Association of Youth and Students for Peace Pilipinas (2020) launched a tree planting and caring initiative that actively involves local youth from various provinces. This project not only contributes to environmental conservation but also provides education and training on the importance of sustaining reforestation efforts. By engaging young individuals, the initiative fosters long-term commitment to ecological preservation and community driven sustainability.

Moreover, Punzalan and Balanac (2020) examined the experiences of Filipino Senior High School students engaged in tree planting activities. The study revealed that direct participation in these initiatives significantly enhanced students' appreciation for environmental conservation. Furthermore, involvement in such activities fostered a sense of responsibility and encouraged active participation in broader ecological efforts, highlighting the value of hands-on environmental education.

Theoretical Framework

This study on the Implementation of the National Greening Program in Cagayan de Oro City was anchored on Stakeholder Theory, originally developed by Freeman (1984). Stakeholder Theory posits that organizations and government programs must consider the interests and involvement of various stakeholders such as local communities, government agencies, indigenous peoples, and private organizations to achieve sustainable and effective outcomes.

In the context of the NGP, this theory highlights the critical role of different stakeholders in ensuring the success of reforestation efforts. The Department of Environment and Natural Resources, local government units, non-governmental organizations, and community members (including Indigenous Peoples and farmers) all play essential roles in site selection, tree planting, and program monitoring. The effectiveness of the National Greening Program relies on the active participation, cooperation, and shared responsibility among these stakeholders.

Previous studies Lubos (2021) have shown that when local communities were actively engaged in the program through proper consultation, training, and benefit-sharing reforestation projects tend to be more sustainable and successful. Conversely, challenges such as financial constraints, lack of community engagement, and site-species mismatches arise when stakeholders were not fully integrated into the program's decision-making processes (National Economic and Development Authority, 2020).

By applying Stakeholder Theory, this study examines how the involvement of various groups in Cagayan de Oro City affect the implementation and sustainability of the National Greening Program. Understanding stakeholder roles, perceptions, and challenges can provide valuable insights for improving policy implementation and ensuring long-term ecological benefits.

Statement of the Problem

This study aimed to determine the level of the implementation of National Greening Program among teachers of Cagayan de Oro City Division during the School Year 2024-2025.

Specifically, it sought to answer the following questions:

1. What are the respondents' attitude towards National Greening Program?
2. What is respondents' level of the implementation of National Greening Program based on Gulayan sa Paaralan Project, Ecological Solid Waste Management, and Tree Growing and Caring?
3. Is there a significant relationship between the respondents' implementation of the National Greening Program and each of their characteristics?

Scope and Limitations

This study focussed on the implementation of the National Greening Program in public schools in the Cagayan de Oro City Division for the School Year 2024–2025. It specifically looked the teachers characteristics based

on age, sex, civil status, teaching experience, position, trainings/seminars attended on National Greening Program, and attitude towards National Greening Program and how the Gulayan sa Paaralan Project, Ecological Solid Waste Management, and Tree Growing and Caring are being implemented. Furthermore, the study investigated the relationship between teachers' characteristics such as age, gender, civil status, teaching experience, position, and National Greening Program training/seminar attendance and their level of participation in the program.

However, this study was limited to 241 secondary school teachers as respondents, in public secondary schools of Cagayan de Oro City, making the findings not generalizable to private schools or other divisions. The research relied on self-reported data from survey questionnaires, which may be subject to biases such as social desirability or recall inaccuracies. The study would focus solely on the implementation aspects of the National Greening Program and would not assess its long-term environmental impact or the sustainability of the planted trees and gardens.

METHODOLOGY

Research Design

This study employed a descriptive-correlational research design to systematically assess the implementation of the National Greening Program in Cagayan de Oro City. The descriptive component aimed to determine the level of implementation of the Gulayan sa Paaralan Project, Ecological Solid Waste Management, and Tree Growing and Caring programs, while the correlational aspect examined the relationship between teacher characteristics and the extent of National Greening Program implementation. The descriptive research design allowed the researcher to gather a detailed understanding of how the program was carried out in various schools, while the correlational approach provided insights into whether specific teacher characteristics influenced the success of the program's implementation. This design ensured a comprehensive evaluation of the program's effectiveness and the factors that contributed to its success or limitations.

Study Setting

The study was conducted in selected public secondary schools in Cagayan de Oro City, where the National Greening Program had been implemented as part of the Department of Education's environmental sustainability initiatives. These schools were chosen based on their active participation in the program and their accessibility for data collection. The urban setting of Cagayan de Oro City presented unique challenges and opportunities in implementing environmental initiatives, making it an ideal location for that study. Schools in the city varied in terms of available space for tree planting and gardening, waste management facilities, and teacher engagement in environmental programs.

Cagayan de Oro was a coastal, highly urbanized city in the [Northern Mindanao](#). Although administratively independent due to its distinction as a highly urbanized city, it is commonly grouped with the province of Misamis Oriental. The highly urbanized city also serves as the provincial capital and regional center of Northern Mindanao. The city has a land area of 412.80 square kilometers or 159.38 square miles. Its population as determined by the 2020 Census was 728,402. This represented 14.50% of the total population of the Northern Mindanao region. Based on these figures, the population density is computed at 1,765 inhabitants per square kilometer or 4,570 inhabitants per square mile. The study took place in select schools of the Division of Cagayan de Oro City, Region X, and looked at the level of implementation of the National Greening Program.

Research Respondents and Sampling Technique

The respondents of this study were the two hundred forty one public secondary school teachers from various secondary schools in the Division of Cagayan de Oro City namely Kauswagan National High School, Bayabas National High School, Canitoan National High School, Bulua National High School, Carmen National High School, Cagayan de Oro City National High School, Puerto National High School, Bugo National High School. They were chosen based on their involvement in implementing the NGP within their respective schools. These teachers played a vital role in sharing their experiences, challenges, and insights regarding the execution of the program. Since teachers were at the forefront of environmental education and school-based sustainability efforts, their perspectives provided valuable information on how NGP initiatives was being carried out. The study also took into consideration respondents' characteristics, such as age, gender, civil status, teaching experience, and position, as these factors might have influenced their level of implementation in the program. By focusing on teachers who were directly responsible for implementing greening initiatives, the study ensured that the data collected was relevant and reflective of on-the-ground realities.

The researcher applied Slovin's formula to determined the sample size of 241 respondents from the population. Stratified random sampling was employed to ensure that each school was proportionately represented. This was done by dividing the computed sample size by its population. By focusing on those with active participation, the researcher was able to gather more relevant and reliable insights into the program's execution. The selection criteria was carefully established to identify teachers engaged in the Gulayan sa Paaralan Project, Ecological Solid

Waste Management, and Tree Growing and Caring, ensuring that the sample accurately reflected the realities of program execution across different educational settings.

Research Instruments

The primary research instrument used in this study was a researcher-made questionnaire. This questionnaire was structured into two main sections: demographic profile of respondents and teacher attitudes of the program, and level of implementation of the NGP.

Part I respondents was asked about the respondents' characteristics in terms of age, sex, civil status, teaching experience, position, highest level of training/seminars attended on National Greening Program and attitude towards National Greening Program.

Part II, on the other hand, required to answer the survey questionnaire on respondents' level of implementation of the National Greening Program with a scale of 4 (At all Times), 3 (Most of the time), 2 (Sometimes), and 1 (Never). This was based on DepEd Order no. 5, s. 2014

The questionnaire utilized a Likert scale to measure responses, allowing for the quantification of data regarding the extent of National Greening Program implementation and the factors that influenced its success. The questionnaire was carefully designed to ensure clarity and ease of response. Prior to the actual data collection, the instrument underwent a validation process to refine the wording of items and ensured their relevance to the study's objectives.

Statistical Treatment of Data

The study employed various statistical methods to analyze the collected data. Descriptive statistics, including mean and standard deviation, would be used to summarize the levels of National Greening Program implementation across different schools. These measures provided an overall picture of how frequently and effectively the program was being implemented. Pearson's Correlation Coefficient was utilized to determine the relationship between teacher characteristics and the implementation of the National Greening Program based on demographic factors. These statistical techniques would allow the researcher to identify patterns, trends, and potential areas for improvement in the execution of greening initiatives in schools. The data was processed using statistical software to ensure accuracy and reliability in the results.

Ethical Considerations

The study adhered to strict ethical research standards to protect the rights and privacy of respondents. Informed consent obtained from all participants before they complete the questionnaire. They were provided with detailed information regarding the study's purpose, voluntary participation, and the confidentiality of their responses. Respondents has the right to withdraw from the study at any time without any consequences. The researcher ensured that no personally identifiable information was disclosed in the final report. Ethical clearance from the academic institution's review board was secured prior to data collection to guarantee that all research activities comply with ethical guidelines. The researcher ensured that findings were presented honestly and objectively, maintaining the integrity of the study.

RESULTS AND DISCUSSION

Problem 1. What are the respondents' attitude towards the National Greening Program?

Table 1
Distribution of Respondents' Attitude towards National Greening Program

Indicator	Mean	SD	Description
As a teacher...			
I believe the National Greening Program fosters a sense of responsibility for environmental sustainability among students and communities.	3.81	0.39	Strongly Agree
I support the idea that involvement in the National Greening Program helps students develop a connection with nature while learning practical skills for sustainable living.	3.81	0.39	Strongly Agree
I believe that through tree planting activities, the National Greening Program has a crucial role in addressing climate change and improving our environment.	3.55	0.55	Strongly Agree

I am confident that the National Greening Program helps students understand the value of growing their own food and reducing reliance on external resources.	3.77	0.42	Strongly Agree
I believe that the solid waste management practices introduced by the National Greening Program can lead to cleaner communities and healthier environments.	3.72	0.49	Strongly Agree
I appreciate how the National Greening Program promotes biodiversity and helps restore ecosystems that are essential for our future.	3.81	0.39	Strongly Agree
I think the National Greening Program instills strong environmental values in students that will stay with them throughout their lives.	3.81	0.39	Strongly Agree
I feel proud to be involved in initiatives like the National Greening Program, where students actively contribute to making the environment greener and more sustainable.	3.56	0.55	Strongly Agree
I consider that the National Greening Program empowers students and communities to reduce waste and improve recycling practices effectively.	3.77	0.42	Strongly Agree
I am hopeful that the National Greening Program's emphasis on tree planting, waste management, and school gardening will result in lasting positive changes in our environment and society.	3.72	0.49	Strongly Agree
Overall	3.73	0.33	Strongly Agree

Legend: 3.26 - 4.00 *Strongly Agree/ Very Positive* 1.76 - 2.50 *Disagree/ Negative*
2.51- -3.25 *Agree/ Positive* 1.00 - 1.75 *Strongly Disagree/Very Negative*

Table 1 shows the distribution of respondents' attitudes towards the National Greening Program with an overall mean of **3.73 (SD= 0.33)**, described as **Strongly Agree** and interpreted as **Very Positive**. This means that teachers truly care about protecting the environment, living sustainably, and the National Greening Program's role in teaching students how to be responsible. They likewise believed that the initiative helped fight climate change, maintain biodiversity, and encourage eco-friendly behaviors in schools. This implies that teachers were all committed to making their teaching and advocacy more environmentally friendly. This indicates that teachers care about the program's short-term benefits as well as its long-term effects on future generations. Also individuals understand the aim of the program and that it contributes towards a greener and more sustainable environment.

This consensus expressed a specific evaluation of the program as a factor of effectiveness in the learning of environmental values and the development of sustainable practices in educational contexts and local communities (Barradas & Ghilardi-Lopes, 2020).

Four indicators received the most emphasis. First was the indicator **As a teacher, I believe the National Greening Program fosters a sense of responsibility for environmental sustainability among students and communities** with a mean of **3.81 (SD = 0.39)** described as **Strongly Agree** and interpreted as **Very Positive** this means that the National Greening Program encouraged teachers to educate students about environmentally friendly practices, organize program activities, and participate in the community. They promoted environmental responsibility through teaching and example. Teachers supported a greener future and National Greening Program success by evaluating development and promoting for environmental causes. This implies that National Greening Program was successful in its mission of raising environmental knowledge and responsibility. Promoting an awareness of ownership for environmental sustainability benefits students, communities, and the environment. High teacher agreement implies strong support for National Greening Program application and aims. Results showed that teachers served not just as implementers of the program but also as promoters for sustainable behavioral change, as their impact on students may go beyond the classroom and support in the development of sustainable communities.

According to Iftikar et al. (2022) by combining environmental education with hands-on activities, the National Greening Program could help students learn more about ecological concepts and motivate them to take part in conservation efforts. Outdoor activities, group projects, and multimedia resources to suit varied learning styles and engage students were key to the program's success. By encouraging schools, local communities, and environmental organizations to collaborate, the National Greening Program may promote environmental stewardship and ensure its long-term viability. In a recent study conducted by Velepini (2025) states that educational endeavors cultivate a

profound awareness of the interconnectedness between human activities and the environment, encouraging individuals to adopt responsible behaviors that mitigate environmental degradation and promote ecological balance.

The second highest among the indicators **As a teacher, I support the idea that involvement in the National Greening Program helps students develop a connection with nature while learning practical skills for sustainable living** with the mean of **3.81 (SD = 0.39)** described as **Strongly Agree** and interpreted as **Very Positive** which means that as a teacher the National Greening Program strengthened students connections to nature. They got strong practice experience and knowledge through their involvement. As perceived that these associations and skills empower students to live responsibly and conserve the environment. The National Greening Program was useful for linking students with nature while providing them with practical sustainability skills. Teachers' endorsement suggested a positive impression of National Greening Program's effectiveness in promoting student ties to nature and living sustainably skills.

According to Hoffman (2019) engaging in such programs can significantly shape students' perspectives on the importance of green spaces within urban environments, fostering a sense of belonging and connectedness to both their communities and the natural world. Muhfahroyin and Oka (2021) states that by actively participating in environmental projects, students gain firsthand experience in conservation practices, which can lead to a more profound commitment to environmental sustainability.

The third highest indicator **As a teacher, I appreciate how the National Greening Program promotes biodiversity and helps restore ecosystems that are essential for our future** with the mean of **3.81 (SD = 0.39)** described as **Strongly Agree** and interpreted as **Very Positive** this means that the teacher recognized the National Greening Program's biodiversity and ecosystem restoration advantages. The teachers also acknowledged that such efforts were essential for future generations' health and sustainability and they embraced the program since it actively builds an improved resilient and thriving environment. Teachers greatly appreciate the National Greening Program's emphasis on enhancing biodiversity and rehabilitating ecosystems. This implies that teachers were aware of National Greening Program's contribution to ecosystem restoration and biodiversity promotion, both of which were critical to the environment's long-term health. This indicates that by prioritizing biodiversity and ecosystem restoration, educators promoted ecological awareness that can be incorporated into lessons, outdoor activities, and community initiatives, thus fostering environmental stewardship as a collective value in schools and communities.

According to Wu et al. (2023) that these efforts include a lot of different methods, such as planting trees, removing invasive species, and fixing the soil, all of which have been selected depending on the individual ecological situation and restoration aims. To be successful, ecological restoration must be part of larger socio-ecological systems that take into account the requirements and reasons of the community stakeholders who work directly with the environment (Waring, 2024).

The last highest indicator **As a teacher, I think the National Greening Program instills strong environmental values in students that will stay with them throughout their lives** with mean of **3.81 (SD = 0.39)** described as **Strongly Agree** and interpreted as **Very Positive** this means that the teachers' belief that the National Greening Program was helpful in influencing students' enduring environmental ethics. Its experiences and lessons learned instill an enduring sense of environmental responsibility. Once adopted, these values will direct students' behavior and choices on preservation throughout their lives. Ultimately, the teacher regard the National Greening Program as an effective instrument for fostering ecologically aware people. This suggested that National Greening Program was seen as effective in establishing environmental values in students, hence promoting their development as individuals. Teachers also recognize National Greening Program as consistent with higher educational goals such as influencing students attitudes and viewpoints.

According to Akinsemolu and Onyeaka (2024) these programs provide students with opportunities to engage in hands-on activities, such as tree planting, waste reduction campaigns, and energy conservation projects, which directly translate into a deeper understanding and appreciation for the environment. Iftikar et al. (2022) states that experiential learning not only reinforces environmental concepts taught in the classroom but also cultivates a sense of personal responsibility and ownership towards environmental stewardship.

In contrast, the lowest mean at **3.55 (SD = 0.55)** described as **Strongly Agree** and interpreted as **Very Positive** to the indicator **As a teacher, I believe that through tree planting activities, the National Greening Program has a crucial role in addressing climate change and improving our environment**. This means that the National Greening Program had favorable effects on sustainability and preservation of the environment through tree planting. This implies that respondents recognize the program's value but doubt its efficacy or implementation. It may also implies that people theoretically agree yet see real obstacles to attaining goals. Teachers may not place significant emphasis on National Greening Program's contribution to combating climate change via tree planting in relation to other factors. The most important finding here was that while tree planting was seen by most as advantageous, teachers may view it as not enough in alone, require additional strategies such as forest conservation, waste management, and climate education, which highlights the requirement for an overall approach to environmental initiatives in educational institutions.

According to Georgiou et al. (2021) this suggested a potential disconnect between the program's intended goals and its actual impact as perceived by educators who are crucial in its execution and dissemination. Rahman et

al. (2019) states that the beliefs and attitudes of teachers regarding environmental initiatives have a direct impact on their involvement and success in fostering environmental stewardship in students.

Problem 2. What is respondents' level of the implementation of National Greening Program based on the Gulayan sa Paaralan Project, Ecological Solid Waste Management, and Tree Growing and Caring?

Table 2
Summary of Respondents' Level of Implementation on National Greening Program

Variable	Mean	SD	Interpretation
Gulayan sa Paaralan Project	3.76	0.28	Very High
Ecological Solid Waste Management	3.78	0.31	Very High
Tree Growing and Caring	3.64	0.41	Very High
Overall	3.73	0.33	Very High

Legend: 3.26 - 4.00 At all Times/ Very High
2.51- 3.25 Most of the Time/ High
1.76 - 2.50 Sometimes/ Low
1.00 - 1.75 Never / Very Low

Table 2 shows the summary of the respondents' level of implementation on National Greening Program with the mean of **3.73** (**SD = 0.33**), interpreted as **Very High**. This means that the schools do not simply know about the National Greening Program; they were implementing its principles on an ongoing basis. This further means that environmental education had been mainstreamed into the division as a whole, where there was not only a commitment to sustainability and conservation practices. It was not driven merely by rules and regulations but by genuine commitment from the heart. There was clear evidence of a large change in embedding environmentalism in the education program delivered in the school division, such that a sustainable culture of environmentalism now infuses both curriculum and co-curriculum in the school.

According to Hu and Mou (2025) the depth of these connections indicates that schools were incorporating ways to negotiate environmental dilemmas by promoting eco-values among both staff and students. In a recent study conducted by Marquez and Olavides (2024) a notable aspect highlighted in various studies was the critical role of community participation in the success of such programs, particularly in mitigating issues like malnutrition through school-based initiatives and enhancing ecological resilience.

Upon examining the results, **Ecological Solid Waste Management** was given the highest mean score of **3.78** (**SD = 0.31**) interpreted as **Very High**. This was because schools were doing a great job of dealing with their waste and looking after their school gardens. This means students were learning real-life skills like recycling, composting, and gardening. This further means that education was likely to build a foundation of environmental responsibility as it was to cultivate healthy living and deeper connections between schools and their surroundings. The focus on Ecological Solid Waste Management was a significant contribution towards a functional or practical environmental education, students were given opportunities to be engaged in the reduction and management of waste types, leading to a sound knowledge about ecological balance and preservation of resources. The practical skills acquired from these activities help to reinforce students' knowledge of theory and enable students to be environmental stewards in their schools and communities (Cahyanti & Raharja, 2020). In a study conducted by Debrah et al. (2021) that the integration of such strategies into environmental curricula bridged knowledge gaps across generations, fostering a sustainable approach to waste management and promoting environmental stewardship. This was essential for the success of national greening programs.

On the other hand, Tree Growing and Caring had the lowest mean of **3.64** (**SD = 0.41**) interpreted as **Very High**. This means that while this element was applied, it may not be as strongly reinforced or covered. This indicates that schools were attempting to do tree planting and maintenance, but that there was space to go deeper with more training, more planting events, more community engagement to fully reap long-term environmental benefits such as climate resilience, greener beds, and a stronger ethic of stewardship in the lives of learners. This further indicates a potential opportunity for improvement, where schools could increase attention on afforestation initiatives and instill greater accountability within students to provide committed care to trees over time. One way to enhance the influence of this component was to implement one of several strategies, like incorporating tree-planting activities in the science curriculum to build a comprehensive perspective of ecological principles (Egerer et al., 2024).

Problem 3. Is there a significant relationship between the respondents' implementation of the National Greening Program and each of their characteristics?

Table 3

Results of the Test on Relationship between the Respondents Implementation of National Greening Program and their Characteristics

Legend: H_0 is rejected if Significant (S)
Significant if p -value < 0.05

H_0 is failed to reject if Not significant (NS)

Teachers' Characteristics	National Greening Program				Overall
		Gulayan sa Paaralan Project	Ecological Solid Waste Management	Tree Growing and Caring	
Age					
	r- value	0.051	0.007	0.055	0.038
	p-value	0.431	0.914	0.395	0.58
Sex		NS	NS	NS	NS
	r- value	0.03	0.079	0.043	0.051
	p-value	0.645	0.224	0.509	0.460
Civil Status		NS	NS	NS	NS
	r- value	0.063	0.127	0.028	0.073
	p-value	0.332	0.048*	0.66	0.350
Teaching Experience		NS	S	NS	NS
	r- value	0.001	0.014	0.06	0.025
	p-value	0.999	0.829	0.351	0.726
Position		NS	NS	NS	NS
	r- value	0.041	0.014	0.06	0.038
	p-value	0.522	0.829	0.351	0.567
Training/Seminars Attended on National Greening Program		NS	NS	NS	NS
	r- value	0.025	0.002	0.029	0.019
	p-value	0.7	0.978	0.66	0.779
Attitude Towards National Greening Program		NS	NS	NS	NS
	r- value	0.483	0.424	0.497	0.468
	p-value	<.001*	<.001*	<.001*	<.001*
		S	S	S	S

Table 12 shows the relationship between the implementation of the National Greening Program and the characteristics of teachers. This findings provides relevant information that was beneficial in explaining the connection between the person and the professional profile of teachers to the programs of the National Greening Program. There were few teachers' variables significantly associated with how much these elements are being actively used at schools.

Specifically, **age had no significant relationship with participation in any of the National Greening Program components** with **r-values of 0.051 ($p = 0.431$) for Gulayan sa Paaralan Project, 0.007 ($p = 0.914$) for Ecological solid Waste Mangement, and 0.055 ($p = 0.395$) for Tree Growing and Caring**. This shows no significant teacher effect (be they old/young) in promoting greening in schools. **Sex** did not have an impact either **r-values were 0.03 ($p = 0.645$) for Gulayan sa Paaralan Project, 0.079 ($p = 0.224$) for Ecological Solid Waste Management, and**

0.043 (p = 0.509) for Tree Growing and Caring. This means that there was no significant difference between the male and the female teachers in the execution of these programs on the environment. With respect to professional characteristics, both teaching experience and teaching role showed no significant association with National Greening Program achievement in its component parts.

The fact that teachers' age, sex, teaching experience, and position were not related to National Greening Program components offers a complex view of life in school regarding environmental initiatives. The similar insignificant of *r* values in these variables implies that these demographic and professional factors do not significantly relate to participation in environmental programs such as Gulayan sa Paaralan Project, Ecological Solid Waste Management, and Tree Growing and Caring (Cahyanti & Raharja, 2020). This overall interest may indicate that the environmental education tools and instructional techniques were effective across diverse demographic groups, thereby cultivating a shared feeling of responsibility for environmental stewardship (Moorhead & Jiménez, 2025).

Likewise, **teaching experience** and **position** were not significantly related to National Greening Program adoption. **Teaching experience** had near to 0 *r*-values: **0.001 (p = 0.999)** for Gulayan sa Paaralan Project, **0.014 (p = 0.829)** for Ecological Solid Waste Management, and **0.06 (p = 0.351)** for Tree Growing and Caring. Correlation with the **position** was also weak and non-significant **r = 0.041 (p = 0.522)** for Gulayan sa Paaralan Project, **r = 0.014 (p = 0.829)** for Ecological Solid Waste Management, **r = 0.06 (p = 0.351)** for Tree Growing and Caring. This evidence implies that participation in NGP was not due to teachers being new to the profession or higher ranked (e.g., a Master Teacher). All levels of instruction seem to contribute with the same proportion.

The most remarkable result, however, was that the number of **trainings/seminars attended** was not significantly related to the implementation of NGP activities. For Gulayan sa Paaralan Project, the **r-value was 0.025 (p = 0.7)**; for Ecological Solid Waste Management, **0.002 (p = 0.978)**; and for Tree Growing and Caring, **0.029 (p = 0.66)**. Although findings had expected that training would make implementation more active, these results showed that attending seminars may not be sufficient. This justifies scrutiny of how anticipated learning outcomes of acquisition were aligned with what jobs to learn will actually require on the job, thus perhaps revealing a distance of knowledge learned in theory in training compared to skills use to learn in order to get the job done inside the school gates.

According to Ernawati et al. (2021) recommended educational model that includes things like more expertise, greater goals for outcomes, self-confidence, and social support could help people get more involved in the management of waste. This suggests that training effectiveness goes beyond simply providing information. Grilli and Curtis (2020) in-depth evaluation of the integration of hands-on experience, the enhancement of self-efficacy, and the development of practical use within these training programs was essential for addressing the noted absence of important relationship.

There was only one teacher-related factor that was significantly related to one component of National Greening Program, i.e., **civil status**, which had a weak but significant relationship with practicing Ecological Solid Waste Management, with **r = 0.127 and p = 0.048**. After controlling for demographic characteristics, it does so, but only very little, which is significant at the 5% level. This could imply that married teachers were somehow more engaged in waste management activities partly because they have formed habits in their private lives or maybe due to greater environmental responsibility in their homes. However, because of the small effect size, this finding should be interpreted cautiously. At its heart, the study suggested that inducements to promote and propagate the National Greening Program should concentrate less on the demographic or professional profile of teacher participants and more on mechanics and structural characteristics of practice, particularly the place-situated conditions that were likely to encourage, sustain, and maintain participation; for example, adequately resourcing and supporting the practice, supporting the cultivation of an enabling ethos in schools.

According to Lestari and Setyaningsih (2019) married individuals may demonstrate different habits of creating and disposing of waste in contrast to single individuals, attributable to common responsibility for the home and potentially larger household sizes, which can influence the community's preparedness for involvement with waste management. Hassooni et al. (2024) states that with children in married families may give parents more things to think about when it comes to waste production and educating children how to care for the environment.

A particularly important finding of the present study was the strong and consistent relationship between teachers' attitudes toward the National Greening Program and the level of implementation across all three components. Pearson's *r* for Gulayan sa Paaralan Project was **0.483 (p < 0.001)**, for Ecological Solid Waste Management was **0.424 (p < 0.001)**, and for Tree Growing and Caring was **0.497 (p < 0.001)**. These were moderate, statistically significant positive correlations, suggested that the more positive teachers' attitudes were to the National Greening Program, the more likely they were to actively use it. This was consistent with the notion that belief and motivation were most important in successful environmental school programs, as opposed to age or qualified status. Teachers' level of competence was significantly related to their teaching effectiveness, thereby highlighting the significance of subsector knowledge, teaching practice, learners' diversity, and staff development in enhancing educational quality. This finding implies that fostering positive attitudes was of paramount importance to interventions directed at optimizing the implementation of the NGP; for example, success stories can be shared, positive feedback can be extended, and a sense of ownership and commitment can be instilled in the teachers. A particular one-size-fits-all

National Greening Program implementation can thus be envisioned through an attitude lend of view and a more personalized and motivation-based approach that takes into due account the pivotal role of the teacher's beliefs and values in promoting the environmental sustainability aims in the educational milieu (Inthanon & Wised, 2024).

The study has clearly indicated overall that demographic and professional characteristics namely age, gender, years of teaching, position, and training, seem to have little effect on the predictability of National Greening Program implementation, but a teacher's attitude towards the program was most important. Developing a sound and positive mindset to become a positive, affirming, good-thinking teacher in all aspects and manifestations of environmental sustainability could be the means with which to further extend the scope and impact of the National Greening Program. This full awareness was necessary to design a winning strategy promoting environmental stewardship and sustainable development in K to 12 learning institutions (Hu & Mou, 2025).

Conclusion

The research manifests how schools were environmentally responsible with ecological solid waste management as the most adhered component of the National Greening Program. Schools and teachers were dedicated to making clean and sustainable learning environments. Teachers were willing to integrate environmental education into the classroom, indicating depth understanding of their role in education as responsible citizens. Further, the success of solid waste management practices of various communities underscores the importance of local government unit, public awareness and sustainable waste management in achieving environmental sustainability and compliance with national policies. Moreover, involvement in such activities fosters a sense of responsibility and encourage active participation in broader ecological efforts.

Recommendations

Based from the results of the study, the following are recommended;

1. Teachers should attend training/seminars on National Greening Program conducted by DepEd to sustain the very high implementation of National Greening Program.

2. Teachers should organize tree growing and caring activities to promote responsibility and a sense of ownership among students. They should collaborate with local stakeholders to make tree growing and caring efforts more effective and aligned with National reforestation goals.

3. Teacher should maintain the very positive attitude towards the implementation of National Greening Program and continuously appreciate how the program restored the ecosystem.

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