

Challenges Encountered by Coordinators and School Heads in the Implementation of the National Greening Program in Bulan II District Elementary Schools

Vanessa Antonette G. Golpo¹, Jhonner D. Ricafort, PhD²

¹Graduate School, Sorsogon State University

²Faculty of Graduate School, Sorsogon State University

ABSTRACT : The global environmental problem is currently at an alarming stage. Climate change is real, and humanity's safety is in peril. This descriptive study aimed to determine the challenges in the implementation of the National Greening Program as perceived by the school head and National Greening Program (NGP) Coordinators in fifteen schools in Bulan II District, Division of Sorsogon Province, Bicol for SY: 2021-2022 along the components: (a) Gulayan sa Paaralan, (b) Ecological solid waste Management; and (c) Tree Growing and Caring. Interviews were conducted with fifteen (15) NGP Coordinators and 15 School Heads who were purposively chosen. It also aimed to craft an action plan that would address the challenges. Thematic Analysis was done through identifying themes and codes. Findings show that the respondents encountered numerous challenges such as insufficient budget, lack of participation of parents, limited resources, and lack of space and land availability. The researcher, therefore, recommends that collaboration and partnership between schools and stakeholders be further strengthened and the execution of the proposed action plan to improve further the implementation of the NGP as well as conducting further research on determining the effectiveness and impact of the implementation of the National Greening Program in the school and community.

Keywords – environment, challenges, National Greening Program , trees, vegetable gardens

I. INTRODUCTION

With the current worldwide problem of climate change which has hazardous consequences like ecological imbalance, the occurrence of strong typhoons, tornadoes, hurricanes, floods, torrential rains, and other environmental maladies, people across the world should think and do something to prevent and mitigate its effects. According to Dunlap and Jorgenson (2012), environmental problems have become globalized regarding existence and impacts. The Philippines, being a third-world country, bears more of the consequences of this problem. Natural resources could no longer answer the needs of the growing population. Hence, the result is the inadequacy of food for the people. From, here other related problems may crop up.

Knowing the gravity of this problem, this research is focused on the aspect of this environmental malady – the worsening level of the environment particularly in schools after the pandemic. All sectors should be mobilized to address this situation. However, the government should take the lead in it.

Thus, the National Greening Program (NGP) came into being thru Executive Order No. 26, s. 2011 ^[1] and DepEd Memorandum No. 58 s. 2011 ^[2]. These guidelines integrate the Gulayan sa Paaralan, ecological solid waste management, and tree growing and caring key components. Moreover, as stated in the DepEd Order No.5 s. 2014, the NGP shall be implemented in all public elementary and secondary schools nationwide by establishing vegetable gardens to serve as food baskets/main source of commodities to sustain supplementary feeding, practice waste management principles such as minimization, segregation at source, reduction, recycling, re-use and composting, establish nurseries/seed banks for the propagation of vegetable seedlings, fruit-bearing trees, and small trees or saplings, and support the tree planting activity in schools and in communities (Lunar, 2016) ^[3]. In fact, there are NGP Coordinators who are designated to take charge of overseeing the program.

The goals of this program are in line with poverty reduction food security, biodiversity conservation, and climate change mitigation adaption. Although the conceptualization of NGP is for reforestation to take place and return the picture of the forest as exuberant as it was, there are still apathetic minds who see the dark

side of it. According to those antagonists to the program; in the IPO Watershed (the first NGP's reforestation site), the native and exotic trees planted have grown to maturity but not in other reforestation sites where the seedlings never got the chance to grow before forest fires burned them to the ground (Ranada, 2014)^[4]. That is why, they said in jest, it is the National Growing program. Another opposition is that the program is deceiving because it seems that it is not to bring back the forest cover but to harvest trees for profit.

Nevertheless, despite these arguments, the government is steadfast and determined in making this program succeed. Aside from the DENR which is the one in charge of it, there are other government agencies tasked to oversee the program- the Department of Education (DepEd), with which the researcher is connected with.

Meanwhile, school heads must render teachers who will undergo training on techniques in implementing programs to address malnutrition, promote vegetable production and attain the goals of the government on poverty reduction, food security, biodiversity conservation, and climate change mitigation and adaptation. In this way, *Gulayan sa Paaralan*, as one of the components of the National Greening Program, will be fully implemented and evaluated as well as it will benefit not only the school and its students but also the community because this program will serve as inspiration for the community and waken their consciousness on the effect of a green environment. (Patilano, 2019).

In some schools with bigger spaces, NGP is very feasible and doable. During the pandemic period, when pupils were not allowed to go to school for fear of COVID-19, school administrators were innovative in maintaining the school grounds. One strategy was to tap the participation of all school stakeholders to adopt an area on the campus for them to clean and maintain such areas. Eventually, some areas were developed and utilized as "*Gulayan sa Paaralan*". Stakeholders refer to some organizations in the barangay like NGO's women organization, parents, SK and barangay officials and subsidies, and prominent are the beneficiaries of 4Ps and even the school itself. Harvests or produce out of the program benefited the stakeholders who participated in the tilling, planting, and caring of the vegetables. They themselves enjoy the fruits of their labor.

Preparation, planning, and organizing in most schools are generally designed to meet the minimum standard as determined by the government. However, as problems and challenges arise in the school, teachers, NGP coordinators, and School Heads must be involved in crafting an enhancement program for NGP. The role of NGP Coordinators is often called to respond to the challenges and problems encountered by the school along the program. They must be well-versed in the strategies utilized for the betterment of the program.

Likewise, many barriers to participation and ongoing engagement in tree-planting initiatives, particularly among low-income and minority neighborhoods, are present. These are challenges in following through with tree maintenance in coordination with local partners and government agencies as noted by Riedman, E., Roman, L., Pearsall H., Maslin M., Ifill T., and Dentice D.(2022). Thus, the study recommended the involvement of barangay officers, the government, and other stakeholders for the betterment of the program.

Similar to this is the study conducted by Gregorio Herbohn and Harrison (2016) which revealed that the use of low-quality planting material is one of the major reasons for the limited success of past reforestation programs in the Philippines and elsewhere in the tropics (Gregorio, et al., 2016)^[5]. As part of the policy, government reforestation programs are required to use only high-quality seedlings from accredited seedling suppliers.

Furthermore, they identified the challenges faced by the school, barangay, and cities in the implementation of NGP. Among these challenges include a lack of political will and budgetary constraints. It was observed that some of the city governments do not give adequate consideration to NGP. There may be many underlying causes for the lack of political will and leadership and some of which include financial constraints; human resource constraints; lack of knowledge and awareness; different priorities; lack of mandates for NGP; and unclear roles and responsibilities. All these issues adversely affect the process of implementation of NGP. It recommended that specific budgets need to be allocated for NGP to improve implementation.

According to the results of a review of the literature, using different strategies could address the main challenges that NGP coordinators, teachers, and school heads face including the fact that strategies in this trying time of the pandemic are a relatively new specialty; lack of preparedness; lack of training; lack of research; and concerns about NGP Coordinators, teachers and school heads' role in NGP. The recommendation was that educators, researchers, and stakeholders need to make efforts to tackle these issues and improve the National Greening Program. It is, therefore, worth emphasizing that planning for a more comprehensive and strategic framework in tackling these challenges is crucial if restoration through tree-based interventions is to yield the intended outcomes of reversing ecosystem degradation.

Thus, this research aimed to identify the challenges encountered in the implementation of the NGP in Bulan II District, Division of Sorsogon Province for SY: 2021-2022, and to craft a proposed action plan that aims to address these barriers.

II. OBJECTIVES

This study aimed to determine the challenges encountered in the implementation of the National Greening Program of the elementary schools in Bulan II District, Division of Sorsogon Province for SY: 2021-2022.

Specifically, it sought to answer the following questions:

1. What are the challenges encountered by the school head and NGP Coordinators along the following components:
 - a. Gulayan sa Paaralan
 - b. Ecological solid waste Management;
 - c. Tree Growing and Caring;
2. What action plan could be proposed based on the results of the study?

III. METHODOLOGY

The researcher utilized a descriptive study design and qualitative analysis techniques on determining the challenges in the implementation of the National Greening Program of the fifteen elementary schools in Bulan II District Municipality of Bulan in the Province of Sorsogon in the Bicol Region. Stratified Purposive Sampling Technique according to the requirements of the research was done in choosing the 30 respondents- 15 NGP coordinators and 15 School Heads. An unstructured interview was conducted by the researcher to gather pertinent data from the respondents.

To analyze the challenges faced by the respondents, the researcher utilized qualitative analysis techniques to identify common themes or categories in the responses. These include content analysis, thematic analysis, or coding techniques. By organizing and categorizing the challenges, the researcher was able to provide a comprehensive overview of the encountered issues. After which it was finally interpreted.

IV. RESULTS AND DISCUSSION

1. Challenges Encountered in The Implementation of NGP

This section presents the strategies utilized by the respondents in the implementation of the National Greening Program such as Gulayan sa Paaralan, Ecological Solid Waste Management, and Tree Growing and Caring.

The National Greening Program (NGP) aims to promote environmental sustainability and address various issues related to deforestation and degradation of natural resources. When implementing the NGP in elementary schools, it is essential to consider themes that align with the program's goals and address specific challenges faced by schools. Here are some themes that can be explored.

1.1. Gulayan Sa Paaralan

A transformative program that brings the vibrancy of nature right into the heart of elementary schools. Gulayan sa Paaralan, which translates to "Vegetable Garden in Schools," is a movement that encourages schools to establish gardens as valuable educational tools. By cultivating these green spaces, students are immersed in hands-on experiences that foster their understanding of sustainable agriculture, nutrition, and environmental stewardship. This initiative not only aims to address the insufficient budgetary resources faced by schools but also creates a nurturing environment where children can witness the wonders of growth, learn essential life skills, and develop a deep appreciation for the environment and the food they consume. Insufficient budget and resources, lack of Biodiversity Conservation, lack of Waste Management and Recycling, no environmental education, and lack of participation of parents are some of the challenges encountered by NGP Coordinators and School Heads in the implementation of NGP.

1.1.1. Insufficient Budget and Resources

According to Dogillo, (2019), the Gulayan sa Paaralan program is one of the mechanisms that the government implemented to promote and raise awareness for food security in the country. Significantly, Gulayan sa Paaralan is one of the programs being implemented by the respondent schools in compliance with the DepEd Memorandum Order no. 223, series of 2016. This program aims to increase awareness of food security in the country through self-help food production activities and values among the learners and appreciation of agriculture as a life support system. The implementation of such a program requires a budget which is the money allocated for its operation. Without it, the program is doomed to fail. In the case of Gulayan sa Paaralan Program (GPP), the budget is for purchasing seeds, fertilizer and pesticides, labor, and maintenance. The budget for the GPP may not be sufficient to implement the activities considering the schools have limited funds for MOOE. However, teachers strategized to raise funds in order to implement the program. This is evident in their responses.

“Nag-aarambagan pa an mga maestra o kami na mga school heads para sa Gulayan hali ini sa sadiri na namu na bulsa.”

(“We, school heads and teachers, are shelling -out personal money for this Gulayan sa Paaralan.”)

“Pasalamat kmi sa mga nagkapira na tawo na nagdadanun pero diri man sira consistent.”

(“We, are thankful to some people who help us, but they are not consistent anyway.”)

The lack of budget for the program is a big problem for teachers, school heads, and NGP coordinators. The said responses may indicate the determination and resourcefulness of the teachers and school heads. To continue and sustain the program, they need to spend their own money. Nevertheless, this may also imply an additional burden for them considering their meager salary.

Creative Fundraising: Encourage students, teachers, and parents to organize fundraising events and activities to generate funds for greening initiatives and **Community Partnerships:** Seek support from local businesses, NGOs, and government agencies to sponsor or donate resources like seedlings, gardening tools, and other materials needed for greening projects.

1.1.2. Lack of Biodiversity Conservation

Native Species Preservation: Promote the planting and preservation of indigenous plant species to restore local biodiversity and create habitat for native wildlife. **Butterfly and Bee Gardens:** Establish gardens that attract and support pollinators, such as butterflies and bees, to educate students about the importance of these creatures in ecosystem health.

1.1.3. Lack of Waste Management and Recycling

Composting: Teach students about composting organic waste from the school cafeteria and encourage them to create compost pits or vermicomposting bins on the school grounds. **Recycling Program:** Establish a comprehensive recycling program within the school, educating students about proper waste segregation and the benefits of recycling.

1.1.4. No Environmental Education

Outdoor Classrooms: Develop outdoor learning spaces within the school grounds where students can engage in hands-on activities related to environmental education and sustainability. **Nature Walks and Field Trips:** Organize visits to nearby parks, forests, or conservation areas to expose students to the natural environment and enhance their understanding of ecological systems.

1.1.5. Lack of Participation of Parents

Program on parents means giving obligations or work to accomplish in school as their contributions to its operation. On the parents' assistance to school programs, teachers and NGP Coordinators said in one of the interviews.

“Diri man talaga maasahan an parents.” (“Parents are not reliable enough.”)

The passive reaction of parents to this program ventilates their apathy and indifference to it. This may be construed as their ignorance or the “I don't care attitude.” In order to mobilize the parents in the schoolwork, they are requested to clean the surroundings before issuing the quarterly report card of their children. Obligated the 4Ps Parents to maintain the school gardens.

Meanwhile, Magsombol (2019) revealed that the level of parents' participation in GPP has a great impact on the success of GPP in school. Without parents' support, GPP will not be productive. Coordination of parents was forced for the successful maintenance of the GPP. Nevertheless, Parents' rigid participation in the GPP enabled them to realize that they played an important role in the great production and success of the program for the benefit of the pupil populace.

1.2. Ecological Solid Waste Management

Waste disposal is not the only concern of the environmentalist, but it is everybody's business. Omona and Madero (2023)^[6] stressed that solid waste management poses a big challenge for many urban households, especially in developing countries. Overcrowding and informal settlements have emerged with illegal and indiscriminate waste disposal. Guidelines for proper management of solid waste management waste are at least observed at the household level in such settings (Jama and Ali, 2019)^[7]. Thus, making the surroundings clean and tidy contributed much to the well-being of the residents of every community. In most cases, the school takes

the lead for it. But one of the problems in its implementation is insufficiency or no budget at all. Lack of awareness and education, insufficient infrastructure, limited space, behavioral change, maintenance and sustainability, limited resources and lack of participation are some of the problems met by the respondents in the implementation of the of National Greening Program.

1.2.1. Lack of Budget And Resources

The budget for this program is the amount allocated to be used in its operation. But apparently, no budget for this program was allocated. The teachers need to strategize in order to implement the project. As teacher explained:

“Pareho man san Gulayan mas lalo ini wara budget, wara man allocated budget sa MOOE. Naisip na lang sin paagi kun pan o ini mamanehar.”

(“Similar to Gulayan this program has zero budget too, no allocation even from MOOE. So, we just think of other ways to manage it.”)

To cover a range of activities for the collection, transport, disposal, and recycling of waste adequate budget is necessary. Available financing has not kept pace with needs because of these volumes of solid waste in line with growing living standards. To address the budget’ problem, solicitation for donations is the answer. However, external funding, like donations is not reliable and sustainable in the long run of the project.

1.2.2. Lack of Awareness and Education

Many students, teachers, and staff may have limited knowledge about ecological solid waste management practices. It is essential to invest in awareness campaigns and educational programs to ensure that everyone understands the importance of proper waste segregation, recycling, and composting.

1.2.3. Insufficient Infrastructure

Some schools may lack the necessary infrastructure to support effective waste management. This includes separate bins for different types of waste, composting facilities, recycling stations, and proper waste collection systems. Limited budgetary resources may hinder the establishment of such infrastructure.

1.2.4. Limited Space

Elementary schools often have limited space available for waste management activities, such as composting or recycling centers. Schools need to find creative solutions to optimize the available space and make the most of their waste management efforts.

1.2.5. Behavioral Change

Encouraging behavioral change among students, teachers, and staff members can be challenging. Breaking old habits and promoting new waste management practices may require continuous reminders, incentives, and educational activities to instill a sense of responsibility and encourage participation.

1.2.6. Maintenance and Sustainability

Once waste management systems are in place, it is crucial to maintain and sustain them over time. This requires regular monitoring, proper maintenance of composting facilities, coordination with waste collectors, and ongoing training to ensure the continuity of the program.

1.2.7. Limited Resources

Elementary schools often face budget constraints, which can hinder the implementation of ecological solid waste management initiatives. Schools may need to seek external funding or partnerships with local government agencies, NGOs, or businesses to secure the necessary resources for waste management infrastructure and educational materials.

1.2.8. Lack of Participation of Parents

It is defined as any program where parents can engage or participate into. They are considered partners of the School in selected activities and endeavors whose ultimate aim is for the welfare of their children. However, school officials and NGP Coordinators said:

” “ Sa irog sadi na programa dri man sadi na kaipuhan an danun san magurang.”

(“In this program (SWM), parents’ help is not anymore needed.”)

Although in school, parents’ assistance is not anymore sought, but at home and in the community, they should be encouraged to learn garbage recycling.

1.3. Tree Growing and Caring

Luna (2016) states that the NGP was established to address the deforestation and denudation of public lands. From a forest cover amounting to ninety-two percent (92%) of the total land area of the Philippines when it was first colonized in 1575, only twenty-four percent (24%) had remained as of 2003. The highest rates of deforestation happened during the Martial Law.

In like manner, the highest According to the DENR’s report published in 2021, seventeen percent (17%) of the Nation’s forest cover is lost every year. This is due to wanton deforestation for various reasons. Deforestation has critical impacts not only on forest dwellers but on the entire country in terms of water availability, local climate, biodiversity, and disaster resiliency. Having this reality denuded forests be replenished and be backed to life. This requires immediate attention of the governments, NGOs, and the people in general. However, the school as the big participating unit has no ready budget for it.

When implementing tree-growing and caring initiatives as part of the National Greening Program in elementary schools, several challenges may arise. Limited Space and Land Availability, lack of Seedlings and planting materials, maintenance and care, seasonal factors and climate variability, behavioral change and engagement and long-term sustainability are some common obstacles faced by the NGP Coordinators and School Heads.

1.3.1. Limited Space and Land Availability

Elementary schools often have limited space available for tree planting activities. Lack of sufficient land or suitable planting areas can hinder the implementation of tree growing projects. Schools need to identify creative solutions such as vertical gardening, container gardening, or utilizing nearby community spaces for planting trees.

NGP Coordinators and School Heads said:

“LGU and MENRO are partners of Ded Ed on programs concerning the environment they provide us space for tree planting, allocate seedlings for tree planting. In the case of LGU , it has a yearly program during Fiesta sa Kabubudlan which makes the children aware of caring for the environment.”

Along this line, “Expanding the Coverage of National Greening Program (ENGP) mobilizing the LGUs as partners in protecting the community’s natural resources”. This would compel the local government in carrying out the goals of the NGP.

The participation of all government agencies together with the private sector and the people in general would be a key factor in the ultimate success of the National Greening Program (NGP).

1.3.2. Lack of Seedlings and Planting Materials

Obtaining an adequate supply of quality seedlings and necessary planting materials can be a challenge. Procuring the right species of trees and ensuring their availability throughout the program's duration requires coordination with nurseries, local forestry agencies, and other relevant stakeholders.

1.3.3. Maintenance and Care

Ensuring the proper care and maintenance of planted trees is essential for their survival and growth. Regular watering, weeding, mulching, and protection from pests and diseases require consistent effort and commitment. Schools may face challenges in allocating sufficient resources, time, and manpower for tree care activities.

1.3.4. Seasonal Factors and Climate Variability

The success of tree growing initiatives can be affected by seasonal variations and climate conditions. Extreme weather events such as droughts, heavy rains, or storms can negatively impact tree survival rates. Schools need to adapt their planting schedules, select tree species suitable for the local climate, and implement appropriate watering and protection measures accordingly.

1.3.5. Behavioral Change and Engagement:

Encouraging students, teachers, and the wider school community to actively participate in tree growing and caring activities can be a challenge. Fostering a sense of ownership, responsibility, and environmental

stewardship requires continuous engagement, educational programs, and hands-on experiences that highlight the importance of trees in biodiversity conservation and ecosystem services.

1.3.6. Long-Term Sustainability

Sustaining the tree growing and caring efforts beyond the initial phase of the program is crucial for achieving long-term impact. Developing a mechanism for ongoing monitoring, maintenance, and periodic replanting will help ensure the continuity and success of the program over time.

2. Action Plan

An action plan was proposed to address the challenges encountered by the NGP Coordinators and School Heads in the implementation of the National Greening Program.

This action plan is intended to enhance the level of implementation of NGP along with the three components Gulayan s Paaralan, Ecological Solid Waste Management, Tree Growing and Caring. Improvement of strategies employed by NGP Coordinators and School Heads in the implementation of the National Greening Program. National Greening Program in terms of Gulayan Sa Paaralan, Solid Waste Management and Tree Growing and Caring. This was prepared based on the findings, conclusions, and recommendations of the study. Data are shown in matrix for a clearer view of the proposed action plan.

2.1. Rationale

To complement reform initiatives on the environmental malady, the National Greening Program (NGP) came into being. Its launching was thru Executive Order Number 26, s.2011 and Dep Ed Memorandum No. 58 s.2011. These guidelines integrate the gulayan sa paaralan, ecological solid waste management, and tree growing and caring as key components.

In the implementation of these guidelines, it is important to take into consideration the different aspects such as allocation of budget, integration into the academic curricula, and the sustainability of the program. As reflected in the result, it came out that the allocation of budget is essential for the sustainability of the program. The outcome of this intervention would somehow promote food security, conserve biodiversity and adapt and mitigate climate change. Based on the findings, there is a need to enhance the implementation knowing that there were weak areas that need to be taken into consideration to promote the implementation of the National Greening Program.

2.2. General Objective

This action plan is proposed to address the challenges encountered in the implementation of National Greening Program.

2.3. Specific Objectives

Specifically, this action plan proposed to:

1. Discuss the challenges encountered by the NGP Coordinators and school heads in the implementation of the National Greening Program.
2. Acquaint the teachers with the other activities in the Gulayan sa Paaralan Project, Ecological Solid Waste Management and Tree Growing and Caring.
3. Build a strong community by connecting with others, and learn how to create engagement through interaction.
4. Discuss how to enhance marketing strategies in promoting the Gulayan sa Paaralan Project.
5. Select and design different activities for the sustainability of the program.
6. Make an effective assessment and feedback system.

Table 1. Action Plan To Address Challenges Encountered by the NGP Coordinators and School Heads in the Implementation of National Greening Program SY:2021-2022

Key Result Area	Objectives	Activities	Person Involved	Budgetary Requirements	Time Frame	Expected Output
1.Gulayan sa Paaralan	1. Allocate budget to support the program	1. Donation and Fund Raising	School Heads NGP Coordinators teachers	MOOE	Year Round	Allocated Budget for Gulayan sa Paaralan
	2.Develop	2.Orientation	NGP	MOOE		Developed awareness

	awareness among parents and stakeholders 3.Intensify utilization of Garden products for feeding program.	of parents and stakeholders 3.Coordinate with the In-Charge of School Based Feeding Program for Food Preparation.	Coordinators School Heads Parents Stakeholders 3.NGP Coordinators School Heads SBFP In-Charge	MOOE	Once a Month Year Round	among parents and stakeholders Intensified utilization of garden products for feeding program.
2.Ecological Solid Waste Management	1. Allocate budget to support the program.	1. Donation Fund Raising	1. NGP Coordinators School Heads teachers	MOOE	Year Round	Allocated Budget for Ecological Solid waste Management
3.Tree Growing and Caring	1. Allocate budget to support the program	1.Donation Fund Raising	1. NGP Coordinators	MOOE	Year Round	Allocated Budget for Ecological Solid Waste Management

Prepared by:

VANESSA ANTONETTE G. GOLPO, LPT

Proponent

V. CONCLUSIONS AND RECOMMENDATIONS

The National Greening Program which implementation is currently ongoing would need to be monitored as well as enhanced. The NGP Coordinators and School Heads have their existing strategies in practice. However, enhancement of these and additional solutions must be taken to ensure a more successful implementation of the said program. This study finds that the coordinators and school heads met challenges in the implementation of the National Greening Program along the three components namely (1) Gulayan sa Paaralan- Insufficient Budget and Resources, Lack of Biodiversity Conservation, Lack of Waste Management and Recycling, No Environmental Education, Lack of Participation of Parents; (2) Ecological Solid Waste Management- Lack of budget and resources, Lack of Awareness and Education, Limited Space, Behavioral Change, Maintenance and Sustainability, Limited Resources, Lack of Participation of Parents; (3) Tree Growing And Caring- Limited Space and Land Availability, Lack of Seedlings and Planting Materials, Maintenance and Care, Seasonal Factors and Climate Variability, Behavioral Change and Engagement, and Long-term Sustainability.

The researcher, therefore, recommends collaboration and partnership between schools and stakeholders be further strengthened through active engagement in programs and projects, and the execution of the proposed action plan to further improve the implementation of the NGP. Further research may also be conducted to determine the effectiveness and impact of the implementation of the National Greening Program in the school and community.

REFERENCES

- [1]. Deped (2011). *DM 58, S. 2011 – Creation Of A Task Force On National Greening Program*. https://www.deped.gov.ph/wp-content/uploads/2021/08/DM_s2021_048.pdf .
- [2]. Executive Order no. 26, S. 2011: Govph. (2011). <https://www.officialgazette.gov.ph/2011/02/24/executive-order-no-26-s-2011/> .
- [3]. Lunar, B. C. (2016). *Extent of Implementation of and Level of Participation in the Project Carbon Neutral: The Case of De La Salle Lipa*. *International Journal of Advanced Engineering, Management and Science (IJAEMS)*, 2(5), 463-472.
- [4]. Ranada, P. (2014). Rethinking the National Greening Program. *Rappler*. <https://www.rappler.com/voices/ispeak/60948-rethinking-national-greening-program/>.

- [5]. Gregorio, N., Herbohn, J., Harrison, S., Pasa, A., & Ferraren, A. (2016). Regulating the quality of seedlings for forest restoration: Lessons from the National Greening Program in the Philippines. *Small-Scale Forestry*, 16(1), 83–102. doi:10.1007/s11842-016-9344-z.
- [6]. Omona, K., & Paul, M. (2023) "Assessment of solid waste management at source in compliance with guidelines." *Journal of STEAM Education* 6.1 (2023): 1-16. Volume: 6 Issue: 1, 1 - 16, 1 - 16, 01.01.202
- [7]. Jama, Mohamed & Ali, Ali. (2019). Challenges of Solid Waste Management and factors influencing its effectiveness: A case study in Burao Municipality. 10.13140/RG.2.2.16762.64969.

Vanessa Antonette G. Golpo¹, Jhonner D. Ricafort, PhD²

¹*Graduate School, Sorsogon State University*

²*Faculty of Graduate School, Sorsogon State University*