Tree Planting Activity to Nurture Impactful Mission (Tanim) at Select Barangay in San Jose, Batangas Action Research

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Abstract:- This study aimed to evaluate the impact of Tree Planting Activity to Nurture Impactful Mission (TANIM) at select barangay in San Jose, Batangas. The study design is descriptive-qualitative in nature. Based on the qualitative data analysis, two themes have emerged such as simple vet useful and the short-term and long-term ecological benefits. The respondents felt contentment and fulfillment with themselves and felt a sense of accomplishment as described as a sense of success and service from the heart which implied a profound sense of achievement and a heartfelt commitment to making a positive impact on the environment. The short-term ecological benefits as described by the participants were local biodiversity, soil protection, soil health improvement, air quality improvement, and microclimate regulation while the potential long-term ecological benefits were enhanced biodiversity, carbon sequestration, water quality improvement, climate resilience, nursery operations, seed collection and processing, community engagement, aesthetic and recreational value of planting more trees, and educational opportunities which implied the immediate gains and envisioned the lasting advantages. The output of the study is the action to increase participation in the Tree Planting Activity to Nurture Impactful Mission (TANIM).

Keywords:- Tree Planting Activity to Nurture Impactful Mission

I. INTRODUCTION

Our environment needs love and affection. We can help protect our ecosystem by engaging in environmental activities. If we can do this, we can improve our quality of living such as tree planting. Trees play a crucial role in having fresh air to breathe, looking for greenish surroundings full of fruit-bearing trees, and establishing a wonderful garden. Tree growing is an essential way to avert the harsh impacts of climate change. We have seen the damage it wrought upon us in the form of super typhoons, monsoon rains, landslides, and erratic weather conditions.

Tree planting Activity to Nurture Impactful Mission engages individuals and communities towards environmental sustainability. They are also encouraged to plant trees as a way to mitigate the effects of climate change, promote biodiversity, improve air quality, and raise awareness about the importance of trees. It involves identifying suitable areas for planting, selecting appropriate tree species, and organizing volunteers to participate in the planting activity. The project may also involve collaborating with local organizations, government agencies, and other stakeholders to ensure the success of the initiative.

"The more trees you have, the less flooding you have, the fewer extreme weather events, the more stable, healthy environment you live in," says Murphy Westwood, global tree expert at the Morton Arboretum outside Chicago, Illinois. The most recent report from the International Panel on Climate Change (IPCC) wrote "Our planet's future is inextricably tied to the future of its forests." "Innovation is a function of constraints," said James Shaw, the New Zealand minister for climate change, during the Global Climate Action Summit in San Francisco in September of 2018. "When things really get constrained, that's when you get creative."

To ensure the long-term impact of the Tree planting Activity to Nurture Impactful Mission, it is important to consider factors such as maintenance and care of the planted trees, monitoring their growth and health, and engaging with the local community to promote a culture of environmental sustainability. By promoting tree planting activities and engaging the community, Project TANIM can have a lasting impact on the environment and contribute towards a more sustainable future for all.

There were various tree planting activities performed in the select barangay at San Jose, Batangas in partnership with various organizations. Tree planting Activity to Nurture Impactful Mission started by establishing a nursery and seed bank. To engage community members and promote plant conservation in the collection of plant seedlings, the One Million Tree Planting Drive was the first activity that is being implemented in the public schools of San Jose. Through collaboration, different organizations participated in the said activity.

One Million Tree Planting Drive aims to protect and preserve the environment to conserve biodiversity and the ecosystem for future generations. Moreover, it also supports the 1 Million Fruit Bearing or Native Trees project, which targets planting 1 million fruit-bearing trees across the Municipality of San Jose. It is an initiative for sustainable protection of our environment and in response to climate

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change while promoting naturally grown or native trees.

Based on the foregoing discussion, the researcher decided to conduct the study on the Tree Planting Activity to Nurture Impactful Mission (TANIM) in the select barangay at the Municipality of San Jose, Batangas to evaluate the impact of the tree planting initiative, the benefits of the trees being planted and community engagement that nurture a sustainable environment.

II. REVIEW OF LITERATURE

Tree planting activity is a fundamental and impactful practice aimed at restoring and enhancing our natural environment. It involves the deliberate and strategic planting of trees in various landscapes, ranging from urban areas to rural landscapes and ecologically sensitive regions. This practice serves a multitude of purposes, each contributing to a healthier planet and improved quality of life.

Since they provide sufficient advantages to humans, trees have long been recognized as an essential component of urban landscapes worldwide. Even though planting trees has long been a necessary part of Nepal's human settlements, the concept of urban forestry needs to be more understood and frequently ignored. In one study, researchers in Lalitpur, Nepal, looked into how aware urban residents were of urban woods and the observed advantages of their consumption and existence. The findings suggested that most respondents had positive opinions toward urban woods and were aware of their benefits. Despite the involvement of several representatives from both government and nongovernmental organizations in the development of urban woods, the city's greenery still needed to grow. Ecosystems adversely impacted by the destruction and were deterioration of urban forests because the town struggled with water, air, and soil pollution. Although no additional laws or rules lead to urban forestry, the local administration has recently embraced urban greenery (Gurung et al., 2012).

According to Skoff and Cavender's essay from 2019 on the advantages of trees for livable and sustainable communities, we are currently in a time where people have influenced the Earth's systems to the point where they have undergone a reformation. Additionally, cities are where the majority of people reside on Earth. To better people's quality of life and meet their needs in a changing environment, the United Nations General Assembly created the Sustainable Development Goals (UN SDG). These all- encompassing objectives constrained the greatest interactions of our time. Effective ways to help achieve these objectives include planting and protecting trees, especially in urban areas where most people live. They were in charge of directing a critical examination of the advantages of trees, which improve social and physical well-being by reducing stress, eradicating air pollution, promoting physical exercise, and fostering a sense of community. While cities are becoming warmer, trees can help to lower the temperature because they give animals a place to live and food to eat. Finally, woods are a prized example of a natural structure that manages stormwater while providing a high return on investment.

According to Green Blue Urban (2015), achieving success in tree establishment primarily relies on selecting appropriate tree species and suitable planting locations. Moreover, granting trees adequate space and soil volume directly influences their above-ground growth. While trees offer substantial advantages, their placement demands careful consideration. This aspect exemplifies just one of the hurdles linked to tree-planting initiatives. It's crucial to plant trees thoughtfully – selecting the right species, aligning with suitable motives, choosing optimal locations, and adhering to proper planting techniques.

Trees do more than just purify the air by removing pollutants, leading to improved air quality; they also have a positive impact on our emotional well-being (Earth Talk, 2015). Destructive carbon dioxide exacerbates climate change, the most pressing global challenge, while trees play a role in combating it (Jacobs, 2018). Thus, helping plant trees gives students a sense of pride and purpose (Brewin, 2014).

On the advantages of trees and forestry, which also envisions the promotion of environmental awareness, some communities have already come to an understanding. According to Relf et al. (1992), there has been an increase in the public's awareness of the value of plants and the role that vegetation plays in societal well-being. Understanding the kind and degree of significance of plants to people can have an impact on the way that they are used in both public and private scenery, the amount of money invested in their foundation and preservation, and the satisfaction gained from plantings.

In the study "Greening Sydney: Attitudes, Barriers and Opportunities for Tree Planting," Sierra (2015) made the underlying assumption that to advance the goal of urban sustainability and recommend changes to local government's policies and practices, it is critical to understand people's attitudes toward the urban forest. In order to identify potential and obstacles to tree planting in two local government zones of the Sydney region, namely Parramatta and North Sydney, the study set out to gauge the views of citizens and local government officials. According to the findings, inhabitants' opinions of trees vary based on the tree's location. On private property, residents plant trees for their aesthetic value and functional benefits (such as shade and privacy), whereas on public land. aesthetic value and environmental considerations are essential. Additionally, they noted that the need to remove trees stems from the damage that tree roots and branches cause to infrastructure. The participants' attitudes vary due to money, different education levels, and various housing types. Officers face challenges when planting trees in public spaces, including long-term maintenance, financial constraints, damage to existing infrastructure, and tree longevity. Constraints included soil type, available area, and pressure from utility officials. The lack of training, relationships with stakeholders, and indefinite tree tactics are also exposed. Local governments must still consider how inhabitants feel about trees because opinions differ according to socioeconomic status.

Almas and Conway (2018) thought that urban woods are becoming more and more valued as areas for maintaining ecosystem processes and producing ecosystem services. Municipalities in North America have adopted long-term strategies to finance strategic management of the urban forest as a result. The researchers conducted a case study of four municipalities, two of which have management plans that call for the planting of more native species and two of which do not, in southern Ontario, Canada. With an emphasis on the relationship between household sociodemographics, municipal significance on native species planting, and inhabitants' views and actions toward native species, they used survey forms to learn about the residents' opinions and behaviors about native tree species. While fewer people are worried about planting native species after hazards are evident, residents frequently have positive sentiments regarding native trees.

In their 2013 study, Kaplana and Topsakal investigated how gender and socioeconomic position influenced students' opinions about plants. 40 Istanbul sixth graders who participated in a qualitative study approach were used to collect the data. They conducted semi-structured interviews and used a survey instrument with open- ended questions. It was shown that 6th-grade kids had good attitudes toward plants because they recognized them as living objects, and gender and socioeconomic level had no bearing on these attitudes. Their research sought to characterize students' attitudes regarding harmful behavior toward plants, how they defend the plants in light of their knowledge, and how aware of nature they were.

Since they provide sufficient benefits to humanity, trees have been a significant component of urban environments worldwide for millennia. Studies have shown that biodiversity protection improves students' academic performance, but little information is available about how it can advance environmental education in the Philippines. In light of this, this study aims to examine the perspectives and experiences of Filipino senior high school students in taking part in a tree-planting exercise, evaluate the relevance of this activity to the study of Earth and Life Sciences, and investigate perceived challenges and opportunities. A descriptive-qualitative research design was used. Five themes, including "simple yet beneficial," "opportunities and constraints," "practical application of learning," "environmental awareness promotion," and "mitigating environmental degradation" have been identified based on the qualitative data analysis. Planting trees as part of a field study program in schools is one of the best ways to counteract and lessen the impact of global warming while fostering the students' academic interests. By enhancing Filipino students' ideas of life, community, and environment-the aim of 21st-century education-this study also highlighted the beneficial effects of tree planting. Last but not least, the study suggests that school communities in the Philippines and worldwide develop extension programs to spur students' interest in and participation in tree-planting activities, gardening, and ecological tours. To do this, the study partners with pertinent organizations and agencies (Punzalan and Balanac, 2020).

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Few trees reach maturity in an urban environment (Watson & Himelick, 2013). While many cities participate in tree plantings, the lack of follow-up care can impact survival rates, thus resulting in a waste of resources (Widney, Fischer, & Vogt, 2016). However great the number of benefits a mature tree can provide, it takes time for the benefits of trees to exceed the costs associated with planting and maintenance (Vogt, Hauer, & Fischer, 2015). One way to increase the survival rates of planted trees—and thus, ensure a wise investment-is to garner community support with tree plantings. This can reduce vandalism and create a sense of ownership (Black, 1978). For example, Sklar and Ames (1985) found that trees planted with community participation had significantly higher survival rates (~60%-70%) as compared to trees that were planted without community participation (<1%). Involving the local community in tree planting may also increase neighborhood ties (Watkins et al., 2018). This may lead to a positive social effect.

➢ Research Questions

Specifically, this study sought to answer the following questions.

- What is the perception and experiences in participating in the Tree Planting Activity to Nurture Impactful Mission (TANIM) in the selected barangay in San Jose, Batangas?
- What are the short-term and potential long-term ecological benefits of the Tree Planting Activity to Nurture Impactful Mission (TANIM) in the selected barangay in San Jose, Batangas?
- Based on the findings, what plan of action may be developed to increase participation and promote the impact of Tree Planting Activity to Nurture Impactful Mission (TANIM)?
- Methods

> Participants and other Sources of Data Information

The respondents of the study were 15 participants from the three select barangay at San Jose, Batangas.

> Data Gathering Methods

The qualitative method of research was employed in this study to identify the perceptions and experiences in participating in tree planting activities and to identify the impact and benefits of the tree planting activities.

A qualitative research design was employed in this study. Individual Interviews will be recorded in audio and video. Each interview lasted for approximately 30 minutes. The participants were informed of the schedule of the interview. After the interviews, the records were transcribed into writing without any alteration in the meaning of opinions and thoughts and evaluated.

Using the content analysis, the researcher developed and applied codes through the categorization of data, identified themes, patterns, and relationships like words and phrase repetitions, and summarized the data by connecting the link between findings and objectives.

> Data Analysis Plan

Interviews were recorded and transcribed into writing. Responses to these transcriptions were classified based on similar or different meanings, and exemplary quotations were directly reported without changing the meaning.

Thematic coding of participant responses was used to conduct data analysis, and the qualitative data interpretation highlighted various emerging themes. The results of the direct observation and participant replies were used to illustrate each subject. Based on the participants' similar and contextual responses, the following themes emerged: tree planting activity was simple but useful, and the short-term and long-term economic benefits. Participants' tree planting participation was recognized as simple yet beneficial. The data analysis revealed that the tree planting activity has a significant influence and is advantageous for students, which can affect their attitude towards environmental consciousness and awareness. All the themes are interconnected.

➤ Ethical Issues

In this study, ethical principles were considered during the data collection process. Ethical guidelines were followed to ensure that all the participants of the study were treated with respect and consideration.

They were oriented that the participation is voluntary and has the right to withdraw from the study at any time. The confidentiality and anonymity of the participants make certain efforts, including the removal of names and descriptions that might reveal the identity of an individual and using numeric labels when quoting the participants' statements. After completing the interviews, participants were allowed to review their responses and make any changes to their statements.

III. RESULTS

The respondents enjoyed the tree planting activity and agreed that it is beneficial to the country and planet. The respondents described how the activity was simple but useful.

- *Key informant 1: I like participating in the tree planting activity that involves putting young trees in the ground to help the environment and communities. It is a simple way of helping the environment.*
- Key informant 10: When I engage in tree planting activity it gave us a positive environmental impact. Trees absorb carbon dioxide from the air and release oxygen, helping combat climate change. This natural process cleans the air we breathe and reduces the greenhouse gases that contribute to global warming.
- Key informant 11: By participating in this simple way of planting trees, the benefits are long-lasting. Trees grow over time in places where we planted trees and create a legacy of improved air quality, enhanced landscapes, and better living conditions.
- Key informant 14: My simple way of planting trees helps manage water resources. It absorbs rainwater and releases it slowly, reducing the risk of floods and improving groundwater recharge.

Most of the participants recognized the benefits of tree planting activity as well as how they felt content and fulfilled with themselves.

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- Key informant 2: By doing the tree planting activity, I made the air cleaner, preventing soil from washing away, giving animals a home, and making our surroundings more beautiful. It's an easy way for everyone to make a positive impact and create a better world for us and future generations.
- Key informant 3: I love planting trees since it doesn't require advanced skills. Anyone, from children to adults, can participate. You dig a hole, place a tree in it, cover the roots with soil, and water it. It's a hands-on task that doesn't demand special expertise.
- *Key informant 7: While the process is simple in planting trees, the benefits are long-lasting. Trees grow over time, creating a legacy of improved air quality, enhanced landscapes, and better living conditions.*
- Key informant 15: Tree planting activities engage my communities, fostering a sense of ownership, shared responsibility, and a connection to the natural environment. It can provide opportunities for my communities to bring people together for a common cause.

The sense of accomplishment was also evident in the response of the participants as they described the sense of success.

- Key informant 4: Tree planting activity nurtures an impactful mission and provides a tangible and visible result. I can physically see the trees I've planted, which creates a direct connection between my actions and the positive change in the environment.
- Key informant 5: By participating in the Tree Planting activity, my expressions of success are interwoven with a deeper understanding of my role in a broader mission. Each one of us planted trees and it becomes a tangible representation of our commitment to environmental stewardship and the betterment of our surroundings.
- *Key informant 9: I like it as it helps the environment and the trees grow and thrive over time, our efforts will have a lasting impact. This sense of contributing to a better future is gratifying.*
- Key informant 13: I love participating in planting more trees to make more green spaces for communities to enjoy. The San Jose de Malaquing Tubig provides shade and boosts tourism through enhanced natural landscapes.

The sense of accomplishment was also evident in the response of the participants as they described the service from the heart.

- *Key informant 6: Through this Tree planting activity nurtures an impactful mission, I am actively contributing a profound commitment to creating a positive and lasting influence on the environment and beyond.*
- Key informant 8: Tree planting activity nurtures an impactful mission to become an embodiment of expressing one's dedication to fostering a greener, more sustainable future. This act of planting trees becomes a

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symbol of caring for the Earth, of recognizing the interdependence between humans and nature.

• Key informant 12: The tree planting activity symbolizes hope, growth, and a commitment to a greener future. Trees can stand as a living legacy of the positive impact individuals or groups have made on their surroundings. It is my service from the heart to recruit more volunteers to plant trees.

The participants found the tree planting activity meaningful and an experience that can make a better world and a better life.

The short-term and potential long-term ecological benefits of the Tree Planting Activity to Nurture Impactful Mission (TANIM) in the selected barangay in San Jose, Batangas were described by the respondents. All participants agreed that participation in tree planting activity has shortterm and potential long-term ecological benefits that play a crucial role in addressing environmental challenges and promoting sustainable development within the selected barangay.

In short-term ecological benefits, the respondents emphasize the local biodiversity that contributed to a more complex and resilient ecosystem.

• Key informant 1: By participating in the tree planting activity, it can lead to an immediate increase in local biodiversity. The trees that we have planted can provide new habitats and food sources for various animal species. This can attract insects, birds, and other wildlife, contributing to a more diverse and resilient ecosystem.

Another key informant emphasizes the impact of planting trees in protecting the soil and its improvement.

- Key informant 2: Engaging in the tree planting activity to nurture an impactful mission helps us to plant more trees that prevent soil erosion by stabilizing the soil with their roots. By doing so, it is beneficial in areas prone to landslides and erosion as we have done in select barangay in San Jose, Batangas. I believe that the newly planted trees can help hold the soil in place and prevent sediment from washing into water bodies.
- Key informant 7: The tree roots help stabilize the soil, preventing erosion and promoting soil health. This leads to reduced soil runoff, which in turn protects water bodies from sedimentation and contamination.

Another key informant pointed out the air quality improvement that trees enhance air quality.

• Key informant 4: I believed that trees play a vital role in improving air quality by absorbing pollutants such as carbon dioxide, sulfur dioxide, and nitrogen dioxide. By planting more trees, through the process of photosynthesis, trees release oxygen into the air, creating a healthier environment for both humans and wildlife. Another key informant mentioned the short-term ecological benefits of microclimate regulation.

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• Key informant 6: It is relaxing to experience that trees provide shade and help regulate local temperatures that can reduce the heat making the environment more comfortable for residents and supporting a wider range of plant and animal species.

The respondents explained the enhanced biodiversity as a long-term ecological benefit of Tree Planting Activity to Nurture Impactful Mission (TANIM).

• *Key informant 5: The constant participation in the tree planting activity boosts my confidence to become part of planting new trees that will mature and create a diverse and complex ecosystem.*

Another key informant gave emphasis on the long-term ecological benefit of carbon sequestration.

• Key informant 9: I believed that as trees grow, they capture and store carbon dioxide from the atmosphere. This is a long-term benefit for mitigating climate change since it helps reduce the concentration of greenhouse gases that contribute to global warming.

Another key informant gave emphasis on the long-term ecological benefit of water quality improvement.

• Key informant 10: I like planting trees in various barangay since I have observed that Trees play a role in filtering water and improving water quality. Their root systems help prevent soil erosion, reducing sedimentation in rivers and streams. Moreover, trees can absorb excess nutrients and pollutants before they reach water bodies.

Another key informant gave emphasis on the long-term ecological benefit of climate resilience.

• Key informant 3: I love recruiting more volunteers to participate since I have found out that participating in tree-planting activities can contribute to climate resilience when planting trees. I believe that mature trees could contribute to local climate resilience by providing shade, reducing heat stress, moderating extreme weather conditions, and protecting communities from strong winds and storms.

Another key informant gave emphasis on the long-term ecological benefit of Nursery Operations.

• Key informant 8: I established and manage tree nurseries that can create jobs and income streams. This involves propagating and raising tree seedlings for distribution in tree planting activities.

Another key informant gave emphasis on the long-term ecological benefit of seed collection and processing.

• Key informant 1: I have collected seeds from native tree species and processing them for propagation can become a source of income for individuals with expertise in identifying and collecting seeds.

Another key informant pointed out the long-term ecological benefit of community engagement.

• Key informant 12: Our community engagement increases the level of awareness on recruiting more volunteers to participate in Tree planting initiatives specifically the local communities. This activity helped us foster a sense of ownership and become an environmental stewardship. This engagement can lead to continued care and protection of the planted trees and surrounding ecosystems.

Another key informant mentioned the long-term ecological benefit of the aesthetic and recreational value of planting more trees.

• Key informant 13: Our participation adds value to the selected area. I believe that the mature trees enhance the aesthetic appeal of the area, providing residents with green spaces for recreation and relaxation. This contributes to the overall well- being of the community.

Another key informant stated the educational opportunities brought about by the tree planting activities.

• Key informant 15: The tree planting initiative can serve as an educational platform for raising awareness about the importance of trees, ecosystems, and environmental sustainability among residents, especially younger generations.

In conclusion, the Tree Planting Activity to Nurture Impactful Mission (TANIM) in the chosen barangay of San Jose, Batangas, has been detailed by respondents, highlighting both short-term and potential long-term ecological advantages. Participation in this mission holds significant value in addressing environmental concerns and fostering sustainable development within the barangay. Through enhancing local biodiversity, preventing soil erosion, improving air quality, regulating microclimates, and supporting various ecological functions, trees offer immediate and lasting benefits. These benefits include not only stabilizing ecosystems in the short term but also sequestration, promoting carbon water quality improvement. climate resilience, and community engagement in the long term. The endeavor encompasses the creation of jobs, income streams, and educational opportunities, along with aesthetic and recreational enhancements. Ultimately, the collaborative efforts in tree planting not only enrich the environment but also empower the community to become stewards of their surroundings for a better future.

IV. DISCUSSION

The first emerging theme of this study is the simplicity of the activity yet useful. All participants reported that they liked the tree-planting activity and agreed that it is useful to our environment. The activity resulted in feelings of contentment, fulfillment, a sense of accomplishment, success, and service from the heart. The respondents expressed a deep appreciation for the simplicity of the activity and its far-reaching benefits. They have found the tree planting activity meaningful and an experience that can make a better world and a better life.

The tree planting activity resulted in positive attitudes of participants towards environmental awareness. It may be due to the exposure of the participants to trees and nature that it has these kinds of effects on mental health. Recent research has shown that trees not only scrub pollutants from the air, so we breathe easier but also help make us feel better from an emotional standpoint as well (Earth Talk, 2015). It is clear from the findings that being surrounded by trees has a direct effect and green space is quite beneficial to mental health. All the participants realized a sense of accomplishment and felt good about the experience they had because of its benefits to the community and the environment.

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The second emerging theme of this study is the shortterm and potential long- term ecological benefits of the Tree Planting Activity to Nurture Impactful Mission (TANIM). The findings of this study suggest that all the participants knew the life-long effect of planting trees and how this is the most effective way to save our planet. Most of the participants highlighted that if we plant trees, we can lessen the effect of global warming, and reduce climate change. Harmful carbon dioxide contributes to climate change, the biggest current problem the world has to deal with but trees help fight it (Jacobs, 2018). Trees are our main survival tool. Participants also made mention of its help in providing clean air and purifying the air thus improving the air quality. One participant specified 'they help in weakening (the impacts of) storms and waves (mangroves). These findings proved that the participants are aware and informed of the tremendous benefits of planting a tree. It can help restore the quality of life in the community and contribute to the fight against climate change.

One of the participants identified the location of the trees has long-term economic benefits. It was discussed in Green Blue Urban (2015) that to have a chance of success, tree species, and location are the first priority in establishing trees. Also, trees need space, they need soil volume – there is a direct correlation between what we provide to grow below ground and with the result we will see above ground.

Obviously, trees bring big benefits but they must be located wisely. This is only one of the challenges that accompany tree planting activity, however, we should be planting the right trees, for the right reasons, right locations, and right manner.

Moreover, helping plant trees gives students a sense of pride and purpose (Brewin, 2014). Most of the participants settled on the idea of the importance of having this activity that can improve their standpoints in life and in nature. Furthermore, the sense of purpose and sense of ownership that they are doing something for themselves and their community were among the values that participants mentioned. Consciousness and acceptance of the importance of trees and their purpose that bridging people and the environment were also grasped by the participants.

Participants also realized the true value of balance among people, life, and nature. Overall, the most rewarding part of this activity was that the participants understood the benefits of tree planting to the core of their being.

According to Pawar and Rothkar (2015), forests are vital for human life because they offer a varied range of resources such as absorbing carbon or acting as carbon sinks, generating oxygen which is important for life's existence on Earth so they are also known as earth lung, aiding to regulate hydrological cycle, world's climatic condition, water purification, providing habitat to wildlife, decreasing global warming, absorbing poisonous gases and noise, reducing pollution, preserving soil, and mitigating natural threats like floods and landslides. Thus, tree planting activity has largescale effects that not only a certain community is benefitted but the world. Participants explained and described the important role of trees in our environment and how it helped in combating climate change.

Skoff and Cavender (2019) highlight the current era's significant human impact on Earth's systems, prompting transformative changes. They emphasize that cities, housing the majority of the global population, play a pivotal role and stress the need to enhance people's quality of life and address evolving environmental challenges. This led to the creation of the United Nations Sustainable Development Goals (UN SDGs), encompassing key global priorities. An effective strategy to achieve these goals involves planting and safeguarding trees, particularly in urban areas. Skoff and Cavender meticulously examined the advantages of trees, which encompass enhancing social and physical well-being by reducing stress, combatting air pollution, encouraging physical activity, and fostering a sense of community. Amidst rising urban temperatures, trees serve as natural coolants, providing habitat and sustenance for animals. Lastly, forests stand out as exemplars of natural systems that efficiently manage stormwater and yield substantial returns on investment.

Certain communities have recognized the benefits of trees and forestry, along with the aspiration to raise environmental consciousness. As noted by Relf et al. (1992), there has been a rise in the general public's recognition of the importance of plants and the part vegetation plays in enhancing societal welfare. Grasping the nature and extent of plants' significance to individuals can influence their application in both public and private landscapes, the financial resources allocated to their establishment and maintenance, and the level of contentment derived from these plantings.

Sierra (2015) revealed the fundamental assumption that comprehending people's attitudes toward the urban forest is pivotal to advancing urban sustainability objectives and suggesting revisions to local government policies and practices. To pinpoint potential opportunities and barriers to tree planting within two specific local government districts in Sydney—Parramatta and North Sydney—the study aimed to capture the viewpoints of both citizens and local government officials. The study's findings revealed that residents hold varying opinions about trees depending on the tree's location. On private property, individuals cultivate trees for their visual appeal and practical advantages (like shade and privacy), whereas on public land, aesthetic and environmental considerations take precedence. The study also highlighted that tree removal is driven by concerns over tree roots and branches causing damage to infrastructure. Participant attitudes diverge due to factors such as financial circumstances, educational background, and housing types. Local officers confront challenges when planting trees in public areas, including ongoing maintenance, financial limitations, potential damage to existing infrastructure, and tree longevity. Factors such as soil composition, available space, and pressure from utility officials further complicate matters. The research also identified deficiencies in training, stakeholder relationships, and long-term tree management strategies. Local governments must continue to consider community sentiments towards trees, as opinions fluctuate based on socioeconomic status.

According to Almas and Conway (2018), there is a growing appreciation for urban forests as spaces that uphold ecosystem processes and provide ecosystem services. This recognition has led North American municipalities to adopt long-term strategies for funding the strategic management of urban forests. The researchers conducted a case study in southern Ontario, Canada, involving four municipalitiestwo with management plans advocating the planting of native species and two without such plans. Their focus was on understanding the connection between household sociodemographics, the importance placed by municipalities on planting native species, and residents' attitudes and Utilizing survey behaviors toward these species. questionnaires, they gathered insights into residents' opinions and actions related to native tree species. The findings revealed that although fewer individuals express concerns about planting native species when hazards are apparent, residents generally hold positive sentiments towards native trees.

Kaplana and Topsakal (2013) explored the impact of gender and socioeconomic status on students' perspectives concerning plants. They engaged 40 sixth graders from Istanbul in a qualitative study approach to gather data. The involved conducting methodology semi-structured interviews and employing a survey instrument featuring open-ended questions. The findings revealed that sixthgrade students held favorable attitudes toward plants, attributing them with life-like qualities. Importantly, gender and socioeconomic background were found to have no influence on these attitudes. The study aimed to elucidate students' viewpoints regarding harmful behavior towards plants, how they advocated for plants based on their knowledge, and their level of environmental awareness.

Trees have held a crucial role in urban settings across the globe due to their significant contributions to humanity. Research has indicated that safeguarding biodiversity enhances students' academic achievements, yet there is a dearth of information concerning its potential for advancing

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V. CONCLUSIONS

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Based on the findings of the study, the following conclusions were drawn:

- The perception and experiences in participating in the Tree Planting Activity to Nurture Impactful Mission (TANIM) in the selected barangay in San Jose, Batangas were simple but useful, felt contentment and fulfillment with themselves, felt a sense of accomplishment as described as a sense of success and service from the heart.
- The short-term ecological benefits as described by the participants were local biodiversity, soil protection, soil health improvement, air quality improvement, microclimate regulation while the potential long-term ecological benefits were enhanced biodiversity, carbon sequestration, water quality improvement, climate resilience, nursery operations, seed collection and processing, community engagement, aesthetic and recreational value of planting more trees, and educational opportunities.
- The output of the study is the action plan to increase participation and promote the impact of Tree Planting Activity to Nurture Impactful Mission (TANIM).

RECOMMENDATIONS

From the drawn conclusions, the following recommendations are hereby forwarded.

- Continue promoting and encouraging participation in Tree Planting Activity to Nurture Impactful Mission (TANIM) highlighting the feelings of contentment, fulfillment, and accomplishment that participants reported can attract more individuals to engage in similar initiatives.
- Create awareness campaigns that emphasize these benefits, ranging from local biodiversity enhancement to long-term climate resilience.
- Incorporate educational programs that can collaborate with the Tree Planting Activity to Nurture Impactful Mission (TANIM) to provide students with hands-on experiences in environmental conservation, fostering a sense of responsibility for nature.
- Establish and maintain sustainable nursery operations.
- Develop strategies that encourage ongoing involvement of the communities in the Tree Planting Activity to Nurture Impactful Mission (TANIM).
- Collaborate with local government authorities and relevant environmental agencies.
- Promote volunteerism as an integral part of community life.
- Consistent monitoring and evaluation of the activity.
- Emphasize the significance of long-term planning for sustained impact and encourage a perspective that values the gradual accumulation of ecological benefits over time will support the longevity and success of the Tree Planting Activity to Nurture Impactful Mission (TANIM).

this study seeks to explore the viewpoints and experiences of senior high school students in the Philippines who engage in tree-planting activities. The study also aims to assess the relevance of such exercises to the study of Earth and Life Sciences and delve into perceived challenges and prospects. The research design is descriptive and qualitative in nature. Qualitative data analysis has identified five key themes: "simple yet impactful," "challenges and opportunities," "practical application of learning," "promotion of environmental awareness," and "addressing environmental degradation." Integrating tree planting into school field study programs emerges as a potent strategy for mitigating the impacts of global warming while nurturing students' academic pursuits. This study not only enhances Filipino students' perceptions of life, community, and the environment-cornerstones of 21st-century education-but also underscores the positive outcomes of tree-planting initiatives. Lastly, the research recommends that educational institutions in the Philippines and beyond establish extension programs to stimulate student interest and participation in tree-planting endeavors, gardening, and ecological excursions. Collaborative efforts with relevant organizations and agencies are vital for achieving this goal (Punzalan and Balanac, 2020).

environmental education in the Philippines. Consequently,

A limited number of trees achieve maturity within urban settings (Watson & Himelick, 2013). While numerous cities engage in tree planting efforts, the absence of subsequent care can impact survival rates, resulting in a waste of resources (Widney, Fischer, & Vogt, 2016). Despite the considerable benefits that mature trees offer, the time it takes for these benefits to outweigh the costs linked to planting and maintenance needs to be considered (Vogt, Hauer, & Fischer, 2015). To enhance the survival rates of planted trees and thus ensure a prudent investment, one effective approach is to secure community involvement in tree planting. This approach can help mitigate vandalism and foster a sense of ownership (Black, 1978). For instance, Sklar and Ames (1985) discovered that trees planted with community participation exhibited significantly higher survival rates (~60%-70%) compared to those planted without such involvement (<1%). Involving the local community in tree-planting efforts might also strengthen neighborhood connections (Watkins et al., 2018), potentially leading to positive social outcomes.

Tree Planting Activity to Nurture Impactful Mission (TANIM), the respondents agreed on the positive impact of the tree planting activity, and it has short-term and long-term economic benefits for people and the environment. It is revealed that this tree planting activity nurtures an impactful mission towards environmental sustainability. Both individuals and communities are encouraged to plant trees to mitigate the effects of climate change, promote biodiversity, improve air quality, and raise awareness about the importance of trees.

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• Future researchers may use this manuscript for reference when they conduct their own studies which may be similar or related to this current study.

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