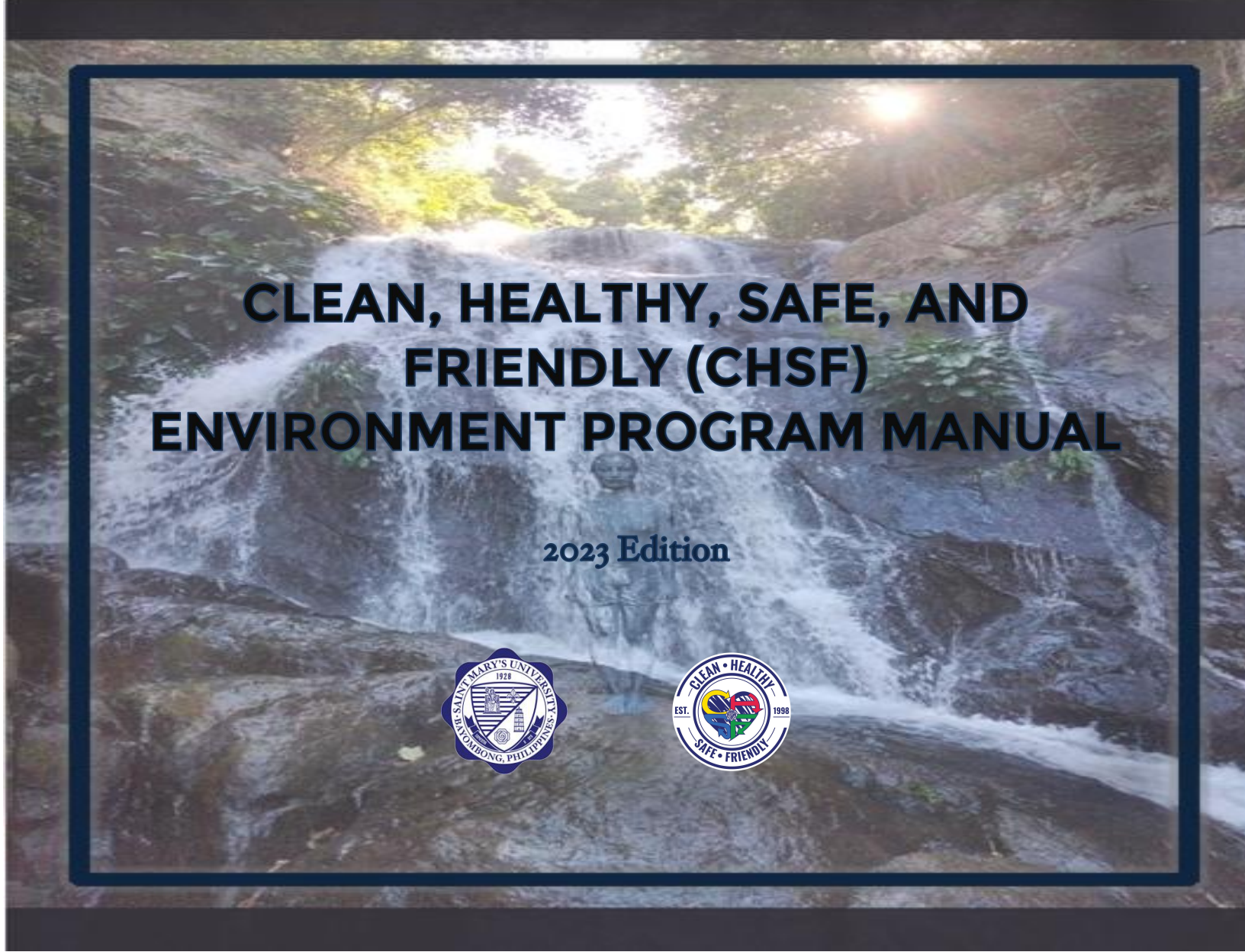


CLEAN, HEALTHY, SAFE, AND FRIENDLY (CHSF) ENVIRONMENT PROGRAM MANUAL

2023 Edition

SAINT MARY'S UNIVERSITY 1928 BAYOMBONG, PHILIPPINES

CLEAN • HEALTHY EST. 1998 SAFE • FRIENDLY

Front cover design: John Lloyd O. Fontanilla, First Placer, 2021 Camouflage Painting Competition
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I. HISTORICAL BACKGROUND

Conceptualization of the Program

The University Campus in the 1990s is not like what it is now. The buildings were not painted, and graffiti was on the walls, restrooms, and chairs. Wild grasses surround some buildings while some others with banana trees. There was even no perimeter fence.

Then University President, Rev. Fr. Jessie M. Hechanova, CICM, called for a meeting to address this pressing problem on the University campus. The initial activity was a seminar-workshop on Total Quality Control (TQC) conducted for the faculty and staff with Engr. Joe Perez of Texas Instruments. Inc., Baguio City as the resource speaker on June 6, 1998. The Japanese Five S program inspired the administration to apply this in the work and learning environment at the University. These Seire, Saeiton, Sieso, Seikutsu, and Shitsuke were the basis for the conception of the clean, healthy, safe, and friendly environment program.

Rev. Fr. Jessie M. Hechanova, CICM, formed a core group with 17 members and later added eight to conceptualize the program. The core group has the University President as Director, Mrs. Corazon N. Abriam, Dean of Student Affairs and Services as Chairman, and Mr. John Tayaban, Human Resource Director, as Vice-Chairman.

The CHSF Program was an institutional response to the calls for a clean and green environment in the late 1990s when environmental awareness and protection became a global concern. Many countries realized that proper environmental care is necessary for sustainable development. During these years, there were different clean and green movements from the government and private organizations; thus, the search for the cleanest environment was a continuing activity in the public and even in the private sectors.

Institutionalization of the CHSF Program

Developing a new culture of cleanliness associated with protecting the environment is a long process. It requires efforts from all sectors of society, like the family, church, media, government, and schools. Values for environmental protection with their behavioral manifestations do not arise automatically. Programs must be initiated and sustained so that each person will internalize these values. Thus, the core group underwent various training, seminars, workshops, and benchmarking on good housekeeping. On September 18, 1998, the core group visited the Texas Instrument (TI), Inc. in Baguio City to observe the implementation and effects of good housekeeping.

Following the benchmarking at TI were various seminar workshops conducted on CHSF for the basic and tertiary level students. There were also separate training sets conducted for the student leaders, the basic education and tertiary faculty and staff, the working scholars, and security guards. The first launching of the CHSF program took place on November 20, 1998, with the vision of creating and nurturing a safe and healthy learning environment with a positive psychological climate for students, faculty, and staff. This program also provides a clean, healthy, safe, and friendly learning environment to all students, members of the faculty, staff, and outside the community who are expected to act as stewards of the environment for today and future generation.

Visitors, alumni, and other institutions have noticed the remarkable changes and transformations of the campus since the program was launched. Consequently, on July 7, 1999, barely eight months after its launching, the Nueva Vizcaya Provincial Clean and Green Committee had a benchmarking through an ocular inspection of the CHSF Information Center. The Environmental Management Office (EMO) was also created this year. It was later renamed the Center for Environmental Management, Training, and Research (CEMTAR) with the vision/mission of being an excellent resource center dedicated to empowering people to protect their environment

and enhance their communities. The Office/Center was headed by Mrs. Lucena Magno, whose headship spanned three University Presidents' administrations.

Implementing and sharing the CHSF Program

Since its inception, there have been many relaunching programs, outreach activities, classroom lectures, organizing and attending seminars and workshops, including song and poem writing and jingle contests. These activities helped institutionalize the CHSF. 2005-2010, under the administration of Rev. Fr. Manny Valencia, CICM, had significant achievements for the CHSF program. There was the intensification of the monitoring and evaluation of the buildings, offices, ground, canteens, laboratories, faculty rooms, and even restrooms compliant with the CHSF Guidelines. It was in SY 2008-2009 that the landscaping competition was done. In 2021, a Home Edition was conducted that paved the way for the selection of the manual's cover page and official song. Among the continuing activities of the program were environmental outreach activities and projects that were implemented, like purchasing waste bins and putting up different signages, and the CHSF Brigade, in which faculty, staff, and students participate. In 2023, the Green Campus project was launched that emphasized the use of no- single plastic to reduce the volume of plastic.

The best features and practices became known to other institutions like the Saint Louis College of Tuguegarao, now the University of Saint Louis. A core group and some university administrators facilitated a CHSF orientation workshop for the college's administration and staff on October 16-17, 2000. On June 23, 2007, Administrators and CHSF advocates of the University facilitated sharing of the SMU CHSF Program with the Administration, Faculty, and Staff of Saint Louis University, Baguio City. CEMTAR also conducted seminars to intensify solid waste management campaigns (RA 9003), forging partnerships with institutions and organizations like the MASIPAG, OISCA-CFP, Bookkeeping Association of the Philippines Incorporated (BAPI), LGUs, DENR, TROCORD, CENRO, and others. Moreover, training of Public School Teachers on the Integration of Environmental Concepts in all subjects (PLT-WET) and the development and utilization of SMU land resources,

i.e., tilapia production, rice production, fencing, and protecting the different land properties, were also accomplished.

Being one of the best practices, the CHSF entry of the University to the SEAMEO TROPMED Network won First Place in the Innovation in School Health Initiative Award on September 8, 2021. The University also received Regional Awards for Best Anti-Illegal Drug Implementation during the CHED-PADS Innovative Awards and Campaign on Anti-Illegal Drugs on May 5, 2022. Before the COVID-19 Pandemic, the Saint Mary's University Senior High School together with the Junior High School was adjudged in December 2019 as Champion for Best Private School of the Gawad KALASAG (Kalamidad at Sakuna Labanan, Sariling Galing ang Kaligtasan) in Region 02; and in December 6, 2019, SMU High School was dewclared as the National Champion in the Private High School Category in the 21st National Gawad KALASAG. The Gawad KALASAG is to give "recognition to the efforts and commitment in supporting and initiating activities geared towards building a learning environment by focusing on creating awareness and involvement of students as well as other stakeholders in achieving the country's vision of safer, adaptive and disaster resilient Filipino Communities" (Saint Mary's University official website).

Firming up the program

The CHSF program was monitored by the Dean of Student Affairs and Services Office (DSA) under Dr. Corazon N. Abriam from 1998 to 2011. In 2011, the program was re-aligned under the Physical Plant, Property Development, and Maintenance Office (PPPDMO) under the headship of Engr. Pascual Cabatic. It was, in turn, placed as one of the Land Resources and Environmental Management Unit (LREMU) functions. It was supervised by Mrs. Me Galate, the former CEMTAR head, a licensed agriculturist, and an accredited Pollution Control Officer (PCO) appointed by Rev. Father Renillo H. Sta. Ana, CICM. The CHSF program found a new place when the LREMU was changed into the Campus Facilities and Environmental Management Unit (CFEMU), still a sub-unit of the PPDMO and under the same supervisor. Meanwhile, Engr. Leonido A. Costales Jr. was appointed as

the PPDMO Head. In addition to the CFEMU, Landholdings Development and Management (LDM) was created, taking care of the properties outside its campuses.

The Community Extension Services Center (CESC) was merged with the Indigenous Knowledge and Traditions Center (IKAT) in 2019. The merging led to the creation of the Lingkod Maria Community Development and Advocacy Center, which is in charge of carrying out CICM and SMU advocacy programs: Indigenous Peoples Social Development, Environmental Protection and Sustainability, Disaster Risk Reduction, Health and Well-being, Hunger Alleviation, Poverty Alleviation, Socio-Pastoral, and Evangelization, and Education for All. It is noteworthy, therefore, that LMCDAC is at the forefront in advancing justice, peace, and integrity of creation, so much so that the CHSF Program was then turned over in 2021 during the administration of Dr. John S. Palina to LMCDAC, which Dr. Christopher Allen S. Marquez headed as the Director. But with the creation of the Safety and Pollution Control Office (SPCO), whose functions are similar to the objectives of the CHSF Program, the SPCO officer takes the lead in implementing the said program. Mr. Hanson T. Villanueva was then the OIC-SPCO Head.

Sustaining the CHSF Program

On April 8, 2016, Fr. Renillo H. Sta. Ana, CICM, the University President, sent representatives to the Eco-Friendly and Sustainable Seminar-Workshop held at Saint Louis University, Baguio City. As its partner collaborator, Saint Louis University spearheaded the seminar-workshop with WEnergy Global, a renewable energy systems solutions provider. The University representatives were Mrs. Alicia Jubay, CESC Director, Engr. Leonido Costales Jr., PPPDMO Head, Mrs. Me Galate, LDM Supervisor, Mr. Sherwin Marciano, NSTP Coordinator, Mr. Job Pilaspilas, SCC Officer, and Mr. Samuel Damayon, ADSAS for Men. The Seminar-Workshop emphasized the response and responsibility, especially of the academic institutions, on the emerging challenges of climate change and protecting Mother Earth through sustainable, eco-friendly practices and the use of a renewable source of energy.

Through the proposals of Mrs. Alicia Jubay, the University President, on April 20, 2016, called for a special Extended Advisory Board (EAB) meeting together with student representatives to review and evaluate the University's environmental program, specifically the CHSF Program. The meeting created a Technical Working Group (TWG) to start reviewing, revising, and proposing a manual reflecting emerging environmental concerns, new ideas and concepts, and new direction for the University's environmental program as a CICM higher educational institution. The Technical Working Group is under the supervision of the VP for Administration, Dr. John Palina, with the core group composed of Engr. Leonido Costales, Mrs. Alicia Jubay, Mrs. Me Galate, and Mr. Samuel Damayon. The other members of the TWG are Mr. Edil Suarez, Mr. Sherwin Marciano, Sr. Crispina Ng, SIHM, Mrs. Agnes Madamba, Mrs. Evangeline Basilio, Mrs. Myla Dueñas, Mrs. Jennifer Alaman, Miss Chantal Tayaban, and Mr. Job Pilaspilas.

In 2023, the CHSF Committee was revisited. The chairmanship of the committee was turned over to the newly created office – the Safety and Pollution Control Office. Among those that were also revisited were the designation of areas for each school, and the CHSF Manual. Hence, this Manual.

II. RATIONALE

Institutions across the globe have witnessed the devastating effects brought about by the changes in our environment. Studies have shown that the observable effects of global climate change, like sea ice loss, accelerated sea-level rise, and more prolonged and intense heat waves, are already very evident. Overall, these published studies explain that the net damage costs of climate change will be significant and increase over time.

According to the Third National Climate Assessment Report (2014), some of the long-term effects of global change in the US are: the temperature will continue to rise, frost-free season, the growing season will lengthen; intense droughts in the Southwest; heat waves (or periods of abnormally hot weather lasting days to

weeks); hurricanes will become stronger and more intense; sea level will rise 1-4 feet by 2100; and the Arctic Ocean is expected to become essentially ice-free in summer before mid-century.

Those events and projected long-term effects have triggered global concerns about how the consequences can be abated. In 1992, world leaders gathering in Rio de Janeiro for the first-ever UN Conference on Sustainability and the Environment led to three documents: The Rio Declaration on Environment and Development, the Statement of Principles for the Sustainable Management of Forests, and Agenda 21.

Agenda 21 is a non-binding, voluntarily-implemented action plan of the United Nations regarding sustainable development. It covers statements of shared values that are expressed in public policies. It also encompasses agreements among international communities along with a sustainable environment.

A historic UN Summit/Conference in 2012 led to the formulation of the Agenda 2030 for Sustainable Development. In 2015, the United Nations chose through a vote the 17 Sustainable Development goals that are universally applicable. This document tackles climate change and calls for poor, rich, and middle-income countries to promote prosperity while protecting the planet. While the sustainable development goals embodied in Agenda 2030 are not legally binding, governments are expected to take ownership and establish national frameworks to achieve these goals.

As indicated in the Department of Environment and Natural Resources Report (2016), the Philippine government has responded to calls for combating the effects of global change by including sustainable development as one of its key strategic formulas in achieving the goal of national socio-economic sufficiency and environmental stability for which national resources, both government and private, have been mobilized and marshaled. More recent laws passed and signed for this purpose include the Climate Change Act, the National Framework Strategy on Climate Change, and the Philippine Strategy on Climate Change Adaptation. These laws give importance to reducing greenhouse gas emissions that go into the atmosphere.

Among the Catholic Schools in the Philippines, calls for actions that aim to care for Mother Earth have been manifested in various conferences, workshops, curriculum review and integration, community outreach, and research, among other things. The Catholic Educational Association of the Philippines (CEAP) conducts regular educators' and students' congress for Mother Earth's care across regions and national levels. The Association of Catholic Universities in the Philippines (ACUP), on the other hand, made a strong statement. In one of its national conferences, all its member schools should get more actively involved in the local deliberations and actions about exploiting the environment for human use through its research and outreach functions based on the solid principles of Catholic Social Teaching or CST.

In 2016, an ACUP national conference was held in Tagbilaran City to discuss and deliberate concrete actions that must be taken in response to Pope Francis' encyclical on caring for our common home (Laudato Si). As asserted by Pope Francis in this encyclical:

> *Creation is not a property, which we can rule over at will: or even less, is the property of only a few. Creation is a gift; it is a wonderful gift that God has given us, so that we care for it and we use it for the benefit of all, always with great respect and gratitude.*

Given these environmental challenges and the calls for caring for the environment by the global community, the national and local governments, catholic associations, and the Pope, member schools of the *Congregatio Immaculati Cordis Mariae* (CICM) have taken the vital steps that outline concrete actions to address these ecological crises. An excerpt from the CICM RP's Justice, Peace, and Integrity of Creation (JPIC) vision-mission statements indicates that "CICM leads themselves to the mission of having a deep integration with creation to relate, persevere, and nurture God's gift of nature to humankind."

As a Catholic and CICM school, Saint Mary's University is one of the other CICM schools in creating programs and projects that promote its strong commitment to environmental sustainability and integrity of creation. One of these programs is the Clean, Healthy, Safe, and Friendly (CHSF) environment program which aims to develop more environmentally-literate Marians imbued with a sense of responsibility to care for and protect the environment.

III. GENERAL OBJECTIVE

To continuously build, strengthen, and deepen ecological consciousness to bring about positive actions, social well-being, responsible resource utilization, and environmental sustainability in our Marian Community, partner communities, and the larger society.

IV. FRAMEWORK

The emerging climate change issues have become a crucial factor that led to an urgent call for action to arrest this phenomenon and ensure a sustainable environment. Sustainability in schools and universities suggests that its undertakings promote environmental protection, economic viability, and social development.

Saint Mary's University has formulated actions through its CHSF program to respond to the call. Thus, CHSF, in the context of the University, becomes its strategic program to ensure a sustainable future. The CHSF Program of the University encompasses three dimensions that define its goals for a sustainable environment. The environmental dimension seeks to promote a livable environment through programs and activities that protect and enhance campus ecology. A clean, green, healthy, safe campus supports effective learning and experiences that foster social development. The economic dimension strives to further a livable environment through strategic policies and actions for wisely managing the school's resources, including wise use of ecosystem services, and eventually promoting an eco-friendly environment. Promoting the well-being of communities through the

school's environmental education program, health and food services, and non-academic formation programs describe the social dimension of the CHSF, which aims to achieve a socially- inclusive environment.

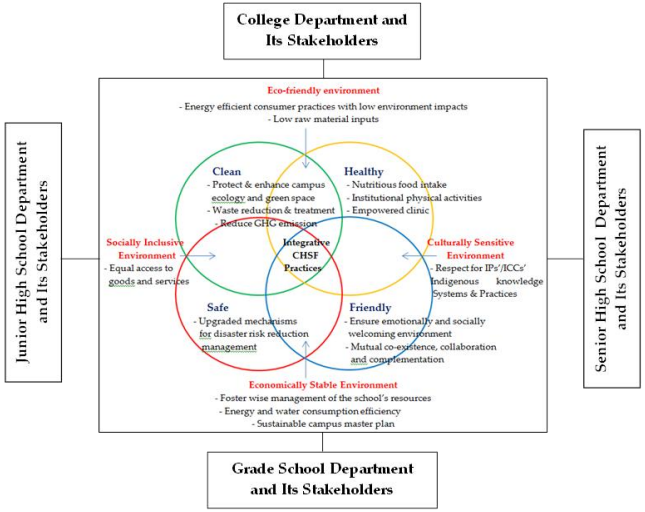


Figure 1. The CHSF Framework

Figure 1 is the new CHSF Framework. It resulted from the study of Dacles, Maslang, and del Rosario (2020) entitled, Securing a Clean, Healthy, Safe and Friendly School Environment, Challenges, and Prospects for Stakeholders: Context of a Private Educational Institution.

CHSF program framework incorporates the four departments of SMU – Grade School, Junior High School, Senior High School, and College. The components of CHSF are also spelled out: Clean, Healthy, Safe, and Friendly. The *Clean* component reflects the protection and enhancement of campus ecology and accommodates green space for the university buildings and other structures. This also includes provisions on waste reduction and treatment and GHG emission reduction. The *Healthy* component shows nutritious foods to be served in the school canteens and other eating establishments. Institutional physical activities and empowered clinics are also included in this aspect. The *Safe* component relates to the critical consideration of standard disaster risk reduction and management. Lastly, the *Friendly* component assures an emotionally and socially welcoming environment and provisions for mutual co-existence, collaboration, and complementation.

At the core of the four components are the integrative CHSF practices the four departments in SMU, including the basic education department, are practicing. The best practices which fall under any of the four components could be part of the CHSF program. The shepherding program, for instance, of the Guidance and Testing Office (GTO) could be counted as part of the program as it falls under the *Friendly* component. Security measures being performed by the school's security guards could also be integrated as this falls under the *Safe* component.

The CHSF program now encompasses four dimensions: eco-friendly, socially inclusive, culturally sensitive, and economically stable environment. The eco-friendly environment dimension seeks to promote a community with energy-efficient consumer practices with low environmental impacts and low raw material inputs. The socially inclusive dimension relates to the condition where there would be equal access to goods and services. The culturally sensitive dimension reiterates one of the CICM priorities: working for and with the IPs/ICCs. Finally, the economic dimension strives to further a livable environment through strategic policies and actions for wise management of the school's resources, including intelligent use of ecosystem services, which eventually seeks to promote an eco-friendly environment.

V. THE CHSF LOGO



Figure 2. The CHSF Logo

The CHSF logo was enhanced in 2023, but it still bears the emblems of the original logo. The year 1998 was still part of the logo to emphasize the beginning and roots of the said program. The arrows signify the four Rs in waste management: reduce, reuse, recycle, and recover, along with the Clean, Healthy, Safe, and Friendly components of the program. The new University logo was placed at the center to signify that SMU is a steward in the care of our common home.

VI. STRATEGIC DIRECTIONS AND ACTIONS

1. **The environmental/ ecological dimension** of the program refers to the institution's ability to uphold the quality of living and non-living systems that include land, air, water, and ecosystems and how they influence healthy and productive life. In the university context, the environmental dimension covers impacts related to inputs such as energy, water, and air, and outputs such as emissions, effluents, and wastes as indicators of a quality environment, including the adoption of great spaces and beautiful landscapes as stimuli to a healthy and productive life.

   Programs and Projects

   The programs and projects under the dimension aim to promote a livable environment by protecting and enhancing the ecology of the campus. Proposed programs/ projects include:

   a. **Campus Green Spaces** - design, and use of open spaces, including green landscaping, to ensure ecosystem balance on campus and its utilization as a learning resource for students and as a recreational facility.
   b. **Waste Reduction and Treatment Project**- waste management reduction program follows the following flow of action: (1) segregation at source, (2) recycling, (3) composing, and (4) reusing of materials. A septic vault was constructed for the disposal of hazardous and special wastes. Residual waste goes to landfills.
   c. Reducing Greenhouse Gases (GHGs)

2. **The economic dimension** refers to the University's operations and their impacts on the economic conditions of its stakeholders and the natural environment. It describes its ability to shift to low-carbon systems and modify patterns of investment, production and consumption, and consumption in ways that

promote a healthy economy and, at the same time, achieve an eco-friendly environment by reducing its carbon footprints. (Respect for indigenous knowledge and technology).

Programs and Projects

The programs and projects under this dimension seek to achieve an eco-friendly environment by reducing carbon footprints through wise management of the ecosystem services and the institution's resources. This can be realized through programs in the following aspects:

a. **Energy Conservation/ Energy Efficiency Program (Green Energy) –** practices and adopting policies to reduce energy costs and eventually reduce our carbon footprint.

b. **Water Conservation and Safety**- practice water-saving tips, regular check-ups of waterlines for leaking water, replacement of damaged faucet and toilet equipment (i.e., urinal, toilet bowl, lavatories, sink), regular water testing for water potability (normal activity), rainwater harvesting program (to be implemented) wastewater discharge to the septic tank in all laboratories.

c. **Low Raw Materials Input -** promotes cost-efficient processes through recycling, reusing, reducing policies on the use of consumables, and adopting procedures to benefit environment-friendly materials (organic), low-carbon emissions, etc.)

3. **The Social Dimension** of the program describes the University's ability to promote the community's well-being through the programs and activities that allow them to learn about the environment, in the environment, and for the environment (environmental education). Providing services and activities that promote a healthy lifestyle, prudent consumerism, and respect for indigenous knowledge, practices on this theme (non-academic formation) among its students, employees, and other stakeholders to further a socially inclusive environment.

Programs and Projects

The programs and projects under this dimension include the following:

a. **Environmental Education**- inclusion (integration) in the curriculum subjects, topics, or themes that allow the Marian community to learn about the environment (knowledge), in the environment (immersion/experiential), and for the environment (desirable actions/behaviors)

b. **Extension/Outreach Services**- considered as part of the non-academic formation. These consist of activities that allow the Marian community to exhibit one of the University's missionary priorities: rendering services to communities to help them achieve a sustainable environment and promoting justice, peace, and integrity of God's creation. These also encourage the respect of indigenous knowledge, practices, and technology to achieve a livable/sustainable environment.

Carrying out the strategic Directions and Actions

Various departments' units are tapped and mobilized to achieve the four components and dimensions. Actions can be carried out through instruction, research, and extension. All units must prepare their plan based on the framework. Still, certain units may have specialized functions like the *Healthy* component to be done by the University Clinic and the *Friendly* component to be handled by the DSA and GTO. The plan may be cognizant of the institutional development plan of three to five years. Thus, each unit must integrate strategic and tactical activities regarding the components and dimensions of the CHSF program in its annual action plan. With the LMCDAC Director as the Vice Chair, CHSF-related activities will be organized and co-organized by the SPCO, which will then be included or considered an institutional extension/outreach of faculty, staff, and students.

4. STRUCTURE

The implementation of the projects and activities of the CHSF program shall be spearheaded, monitored, and evaluated by a CHSF Committee. The following is the composition of the CHSF Committee:

Chairperson:	Safety and Pollution Control Office Head
Vice Chairperson:	Lingkod Maria Community Development and Advocacy Center Director
Members:	Physical Plant and Properties Development and Management Office Head
	Student Affairs and Services Dean
	Center for Natural Sciences Director
	Community Development and Advocacy Coordinators
	Disaster Risk, Safety, and Sanitation Coordinators
	National Service Training Program Coordinator
	Non-Academic Personnel President
	General Services Office Head
	Student Central Council President

5. SUSTAINABILITY COMPONENT

The activities set for each component and dimension shall be monitored monthly to ensure that the planned activities are carried out. On the other hand, reporting shall be done on a semestral basis, that is – at the end of the first semester. This allows the unit or person in charge to adjust if a particular activity was not scheduled.

The annual reporting of the plans that were accomplished or not accomplished for a given school year across the four components and dimensions shall be done during annual performance monitoring and action planning. In this way, issues, concerns, and facilitating factors are identified and addressed or strengthened respectively. These mechanisms allow all units and their members in the University to exert continuous or sustained efforts toward creating sustainable communities.

To solve the problem of lack of knowledge about the program and for wider information and dissemination, the NSTP classes can be utilized to discuss the program. One module or chapter of the NSTP

course can accommodate the information and dissemination campaign of the program. For SMU employees, seminar-workshops will be performed for the program to become familiar to the implementers and all the members of the Marian community. Finally, for the basic education departments, class advisers will be requested to facilitate the information and dissemination of CHSF undertakings.

6. APPENDICES

BEHAVIORAL GUIDELINES for the CHSF PROGRAM

School Responsibilities:

1. To develop and implement policies and procedures that assist all staff and administrators in creating a clean, safe, healthy, and friendly learning environment that fairly and consistently addresses every student's needs;
2. To create a caring and nurturing learning environment;
3. To maintain a welcoming and friendly school environment; and,
4. To ensure that all students, faculty, staff, and administrators share a caring relationship, positive behavior, and responsible treatment with each other that reflect the virtues of Mother Mary.

Responsibilities of Faculty, Staff, and Students:

1. To participate in professional activities that address all school community members' health and safety concerns;
2. To develop positive and meaningful relationships with peers, teachers, staff, and students;
3. To ensure that Environment Education is integrated into the instruction;
4. To apply university policies in the classroom rules consistently and fairly;
5. To create a safe and welcoming/caring classroom environment;
6. To follow the laws, rules, policies, and procedures in the classroom, school, and community;

7. To use effective verbal and non-verbal communication skills and talk in a subdued voice to promote a healthy relationship;
8. To take advantage of the teaching and learning opportunities that the University provides;
9. To enter the classroom only after the teacher from the previous class has left;
10. To refrain from staying in the classroom during vacant periods;
11. To refrain from sitting on the table or desk;
12. To turn off lights, electric fans, and air condition unit; and,
13. To arrange chairs and clean the chalkboard and chalk ledges right after the class for the next user.

SPECIFIC GUIDELINES:

1. **Classrooms:**
   - **a.** Smile and be courteous to people around you and respect the property and rights of the individual. Avoid shouting and making unfriendly or insulting remarks.
   - **b.** Practice the "CHSF Minute" before and after every activity. Students and teachers should spend one minute picking up litter inside the classroom, disposing of them properly, arranging chairs and tables, cleaning the board, etc., to ensure a well-kept learning environment.
   - **c.** Do not throw trash out of the window, on the floor, or leave them under the table, desk, and chair. Follow proper waste disposal and segregation at the source. Dump only sorted waste in designated garbage bins at designated areas.
   - **d.** Refrain from staying in classrooms during vacant periods, playing, sitting on chairs and tables, and vandalizing school property.
   - **e.** Switch off lights, electric fans, air condition unit when not in use.
   - **f.** Texting during class is not allowed. Deactivate cellular phones or put them in silent mode.
   - **g.** Eating inside the classroom is not permitted.

h. Refrain from using plastics and styrofoam/polystyrene as food containers to ensure a healthy and litter-free campus.
i. No smoking (cigarettes, vapes), no chewing of gums and betel nuts in the classroom, and spitting anywhere is not allowed.
j. Always follow emergency and evacuation procedures in emergency cases.
k. Notices and announcements should be written on the board and not on walls and classroom doors.
l. Windows and doors should be closed at the end of the day or after the last class period.
m. Teachers and students are allowed to enter the classrooms only after the teacher of the previous class has already left.
n. Report to the maintenance office any damaged/destroyed fixture and equipment for immediate repair and replacement.

2. Faculty Rooms

a. Refrain from gossiping and speaking in a loud voice.
b. Courteously greet the people inside the faculty room.
c. Refrain from entertaining vendors inside the faculty room,

3. Laboratories

a. Science Laboratories

- Refrain from eating inside the laboratories.
- Be safety conscious inside the laboratories. Use personal protective equipment during experiments.
- Take extra care of equipment/ chemicals/materials/apparatus inside the laboratories.
- Dispose chemical waste in designated containers for chemicals.
- Dump organic/biodegradable residue at windows for bio-degradable wastes, while chemical residues are discarded at the septic vault after proper treatment.

- Dispose toxic/hazardous wastewater at a separate septic tank/vault and not in a toilet septic tank.
- Always wash hands with detergents and water.
- Report to the maintenance office damaged facility for immediate repair and/or replacement.
- Please refrain from engaging in any unnecessary activities or playing while inside the laboratory.
- Always clean the laboratory before and after using it.

b. HRM Laboratories

- Practice the "CHSF Minute" before and after every activity. Students and teachers should spend one minute picking up litter inside the classroom and adequately dispose of it before and after the class to ensure a litter-free learning environment.
- Follow laboratory safety and emergency procedures in all areas of the HTH laboratory to ensure safety and hazard-free activities.
- Ensure that the students come in with proper attire and protective equipment/gear.
- Dispose plastic bags and different residuals in non-biodegradables. Dispose recyclable wastes such as pet bottles, glass bottles, tin cans, papers, etc., in recyclable bins. All accumulated wastes must be regularly disposed of to ensure a healthy and safe laboratory.
- No smoking (cigarettes, vapes) inside the laboratory.
- Follow housekeeping rules and regulations.
- Report to the maintenance office damaged facilities for immediate repair and replacement.

c. Computer Laboratories

- Practice the "CHSF Minute" before and after every activity. Spend one minute to pick up litter inside the laboratory and adequately dispose of it before and after every activity.
- Follow laboratory rules and regulations in the computer laboratory.
- Put off the units (computer and air condition units) when you have to be out of the room for more than two hours.

- Do not turn on the air-conditioning units before 8:00 A.M. unless the weather is hot.
- Keep the room temperature at an average of 20 degrees centigrade.
- Allow 2-3 minutes before changing the timer.
- Close the computer laboratory door gently after each class. Computer laboratory doors should always be closed to maintain the temperature inside the laboratories.
- Always clean doors, window-sills, and awnings.
- Make use of the energy-saving features of your computer. Most new models are designed to be energy efficient (Take note of the Energy star logo)
- Regulate use of computers. Lessen unnecessary use of computers.
- Turn off printers, scanners, modems, and other peripherals when not in use.

Air conditioners

- Do regular cleaning and maintenance check-ups of air conditioners.
- Minimize heat and air leakages.
- Lower ceiling and lessen dividers that prevent air circulations in rooms.
- Recommended/buy/use CFC-free models.

Appliances and Equipment

- Choose more energy-efficient appliances.
- Do regular cleaning and maintenance check-ups of appliances and equipment.
- Check if the appliance (refrigerator and freezers) is CFC-free.
- Limit the use of electric coffeepots in offices.

4. Canteens

a. Be courteous with people around you; smile, and talk in your most subdued voice.

b. Put back utensils (trays, plates, spoons, forks, bottles, cups, etc.) after use in the designated area: do not leave them on the table.
c. Dispose of wrappers and other trash properly in designated garbage cans. Do not leave them on the table or throw them on the floor.
d. Refrain from making the canteen a study area, lover's rendezvous, and hangouts. The canteen is meant to be an eating area only.
e. Put back chairs under the table after use.
f. Do not leave belongings unattended on the table.
g. Be patient in forming your line and wait for your turn to be saved.
h. Follow entrance and exit signs when ordering and paying and give the exact amount when paying as much as possible.
i. The use of styrofoam/polystyrene and plastic is strictly prohibited. These materials are highly toxic when exposed to heat and they react on food during storage. Use re-usable plates, spoons, and forks instead of plastic utensils.
j. Canteens are open promptly and close at an appropriate time.
k. Vendo machines are cleaned regularly.
l. Adequate drinking fountains and containers are provided.
m. Put off electric fans and lights when not in use.
n. The canteen area and peripherals must be maintained by the canteen owner/manager and their staff.
o. Notify the maintenance office for repair and/or replacement of any damaged/non-functional facilities.

5. Storeroom

a. Cleaning materials should be separated from food items.
b. Empty cases of soft drinks are put in separate storage.
c. Materials should be in their proper and labeled places.
d. Garbage cans are placed away from the dining tables and emptied regularly.

e. Bottles, glasses, plates are gathered after use and are appropriately put in their respective area.

6. Kitchen

a. Kitchen utensils should be neatly arranged for easy use.
b. All utensils should be dried and clean.
c. Enough utensils should be provided to serve the number of clients.
d. All utensils should be labeled.
e. Spoons and forks are soaked in hot water.
f. The water supply is sufficient.
g. Goods should be stocked in an orderly manner.
h. Cracked and chipped drinking glasses are not used.
i. Enough ventilation is provided.
j. Ingredients and uncooked food should be stored in closed cabinets (except for vegetables that need air).
k. Perishable and non-perishable goods are separated.
l. The workplace is always clean and dry.
m. Hands are washed before handling food.
n. The kitchen is separated from the dining area.

7. Dining Area

a. Customers are served one at a time.
b. Price tags are placed on food items.
c. The menu list is updated with corresponding prices.
d. Varied and low-cost nutritious food is prepared for snacks and meals.
e. Plastic bags and straws for soft drinks are not allowed.
f. Spoiled, expired foods are not served.

g. Clean drinking glasses are replenished regularly.
h. Designated areas for used utensils are cleared promptly.
i. Food items are placed in fly-free display cabinets.

8. School Grounds

a. Be gracious and helpful to fellow students, teachers, and visitors you meet on the school grounds.
b. Always keep right when walking along corridors, pathways, and entrances.
c. Talk in a subdued voice to avoid disturbing those who are studying or have ongoing classes. Speak in a low voice when passing by classrooms, libraries, and offices.
d. Give considerations to gardeners and maintenance personnel by not vandalizing properties or destroying plants.
e. Do not throw your candy wrappers or papers on the school ground.
f. Refrain from removing and transferring benches.
g. Do not use the oval as the pathway.
h. No smoking in all areas of the campus.

9. Restrooms

a. Be courteous to people around you. Smile and talk in your most subdued voice.
b. No spitting of "momma" in toilet bowls, urinals, sink, and flooring, or any place inside the comfort rooms.
c. This is a non-smoking campus; therefore, smoking (cigarettes, vapes) in the toilets or in any campus area is not allowed.
d. Do not urinate on the floor and sink. Use the urinals and toilet bowls. Always keep the floor clean and dry.
e. Flush the urinals and toilet bowls properly after use. Flush them using your hands and not using your feet.

f. Do not flush sanitary napkins, toilet papers, and other trash down the toilet bowl. Wrap and dispose of sanitary napkins in receptacles or waste bins provided.
g. Do not write on walls, doors, mirrors, etc. Destroying toilet fixtures is not allowed.
h. Return water containers to their proper place after use.
i. Leaking faucets, destroyed bowls, and other defects found inside the restroom should be reported immediately to the maintenance office for repair and replacement.
j. Avoid messing with the toilet bowl. Do not squat or step on the toilet bowl. Please sit properly.
k. Always knock first if the toilet or bathroom appears occupied, and lock the door when you enter.
l. Always close faucets after use to conserve water, and do not forget to wash your hands before leaving the toilet.

10. **Buildings**
    a. Report to the maintenance office observed cracks or gaps on walls, ceilings, beams, or columns.
    b. Immediately report any leaks on water faucets, toilet bowls, ceilings, and roofing structures to the maintenance office.
    c. Sit appropriately on benches and chairs.
    d. Refrain from writing on desks, tables, walls, and columns.
    e. Do not gather around fire exits. Make sure they are free from obstructions.

11. **Building Specific Guidelines:**
    a. Ceilings
    - Ceilings are clean, tidy, and free from cobwebs and specks of dust, etc.
    - Unnecessary hanging objects like strings, ropes, and posters, etc., are removed from ceilings.

    b. Walls, Columns, Beams
    - Walls and columns are free from writings and graffiti.
    - Painted walls have no notices, pamphlets posted on them.

- Graffiti and other marks are removed through regular touch-up paintings. Identified culprits are given a necessary reprimand.

c. Windows and Doors

- Garbage is not thrown out of the windows.
- Windows are closed during bad weather conditions.
- Window glasses are cleaned regularly.

d. Staircases/Stairwells/Emergency Exits

- Staircases and stairwells are free of materials (especially explosive and fire hazards) That may obstruct traffic and cause accidents.
- Fire exits are open at all times and are freed from loitering persons and unnecessary materials.
- Sitting on staircases is not allowed. It hinders the exit and entrance of faculty and students, especially during emergencies.

e. Flooring, Corridors, Lobbies, and Entrances

- Corridors, lobbies, and entrances are always open and free from groups of people that may cause obstruction.
- All fixtures on corridors, lobbies, etc., like trash cans and benches, are always in their original places and are not disarranged.
- No spitting of beetle nut on floors, staircases, and other places to assure a stain-free environment.

f. Covered Walk, Catwalks, and Sidewalks

- On corridors, concrete and wooden benches, bulletin boards, etc., are always in their original place and not disarranged.
- Benches are appropriately used for seating and are free from any graffiti, vandalism, and waste.

g. Sanitary Plumbing/Water Supply

- Faucets and water closets are closed when not in use.
- Annual water testing should be done regularly at the start of every semester.

h. Electrical/ Mechanical Systems

- Lights are switched off when not in use.
- Lights are available and functional in all areas (indoor and outdoor).

12. Offices

a. Serve clientele on a "first come, first serve basis", treat them fairly and reasonably.
b. Give service with a smile.
c. Observe professional ethics, avoid jealousy, gossip, and maintain a Christian relationship with others.
d. Always wash your hands after using the restroom.

13. Library

a. Put back chairs under the table after use.
b. Do not leave belongings /valuables unattended on the table.
c. In borrowing book/reading materials, be patient in forming your line and wait for your turn to be served.
d. Follow entrance and exit signs properly.
e. Be courteous in requesting books.
f. Silence is a must in all reading areas.
g. Keep right when passing through passageways.
h. No eating, smoking and shouting inside the library.
i. No loitering and littering.
j. Deactivate cellular phones or put them in silent mode.
k. Follow/comply with the rules and regulations of the various library sections as stated in the student's handbook in using the library.

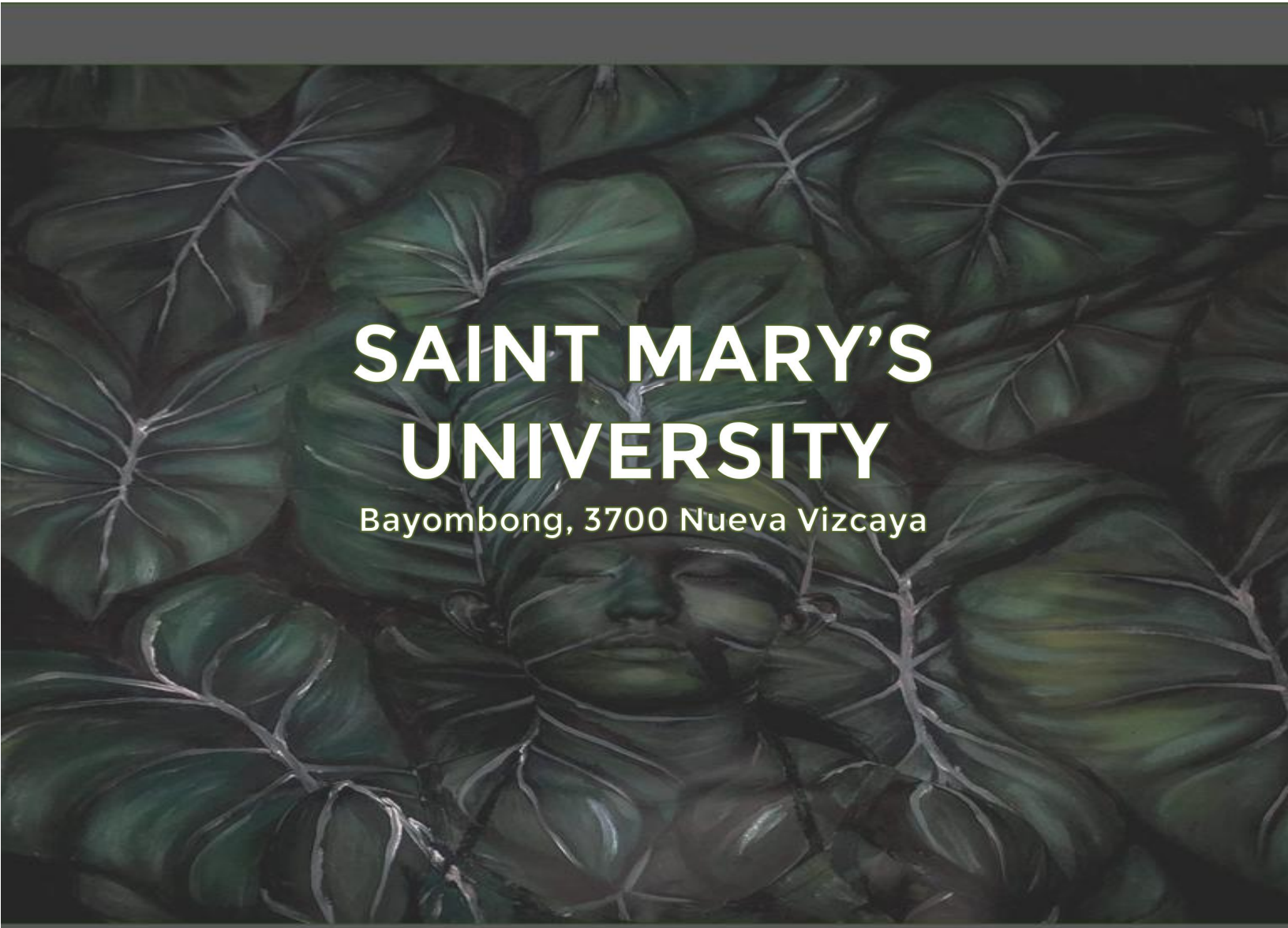
14. Motor Pool and Carpentry Shop

a. Always observe safety in every area of the shop.
b. Use/wear safety gadgets in doing every job.
c. Practice the "CHSF Minute" before and after every activity. Spend one minute to pick up litter.
d. Put off lights or other electronic gadgets when not in use.
e. No smoking and drinking alcoholic beverage inside the shop.
f. Always follow safety rules and regulations at the start of each job.
g. Motor vehicles should be in good running condition. Regular maintenance, repair, and replacement should be observed.
h. Report immediately to the maintenance office equipment and types of machinery that are defective for immediate repair and replacement.
i. For university vehicles, only a licensed driver and approved by the VP Administration can drive/operate the university vehicles for official trips.

15. Transportation and Fuel

a. Promote car-pooling
b. Find ways to solve the traffic problem in schools.
c. Plan trips.
d. Walk whenever possible.
e. Keep speed down. Wind resistance increases as car speed increases and more fuel are required to move the car at a higher rate.
f. Avoid "Jack Rabbit" starts. Gradual acceleration can save as much as one km./liter compared to rapid acceleration.
g. Keep speed constant.
h. Anticipate stops.
i. Avoid engine idling. As a guide, drivers should not idle engines for more than three minutes.

j. Warm engine by driving.
k. Do regular engine cleaning, maintenance, and check-up.
l. Minimize the use of air conditioners.
m. Maintain correct tire pressure.
n. Keep transmission in high gear.
o. Minimize vehicle loads.
p. Avoid fuel spillage.
q. Conduct emission testing.


SAINT MARY'S
UNIVERSITY
Bayombong, 3700 Nueva Vizcaya

Green Campus Project

RATIONALE

Saint Mary's University through the years had been one of the advocates for environmental protection. With the mission of "steadfastly participate in the CICM advocacies of promoting multi-ethnicity, social justice, peace, and integrity of God's creation" we have made programs, projects, and activities for the protection of our environment. Two decades ago, the university crafted its CHSF program aimed at practicing what we teach inside the classroom. Our current engagements whether local, national, or international have always had an environmental protection goal.

With the growing environmental concerns, the government had even to enact environmental laws to protect our mother nature. One of these laws is RA 9003. This Act makes provision for efficient solid waste management, for the volume reduction of the waste, its environment-friendly disposal, composting, recycling, re-use, recovery, green charcoal process; for the collection, treatment, and disposal in environmentally sound solid waste management facilities. It aims for the proper segregation, collection, transport, storage, treatment, and disposal of solid waste. It also concerns the protection of groundwater from pollution.

Several higher education institutions had already policies on banning the in-campus use of plastics and even the selling and bringing in of drinks contained in PET bottles which are being implemented religiously. As part of the university's advocacy for promoting the integrity of God's creation, the implementation of our existing laws, and the execution of our programs and projects, this proposal was made and endorsed.

On a personal note, during the Midyear 2022, it was observed that students brought their tumblers. This was due to the fact that most of them were not allowed to go out of campus (limited face-to-face guidelines) and there are limited drinking stations or canteen that sells bottled water or bottled water is expensive for them. This shows that it is possible to ask our students to bring their own drinking tumblers.

OBJECTIVES:

1. To manifest our environmental advocacies;
2. To show support for our environmental laws;
3. To instill among our students the value of protecting the environment; and
4. To implement our CHSF program by banning PET bottles and the use of plastics on campus.

OFFICE OF THE UNIVERSITY PRESIDENT
Received by: Ysha
Date: August 17, 2022
Time: 8:00 am

A218, Second Floor, Fr. Godfrey Lambrecht Building
SMU Main Campus, Ponce Street, Don Mariano Marcos
Bayombong, 3700 Nueva Vizcaya, Philippines
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OPERATIONALIZATION:

Actions taken:

The proposal was discussed with the Student Central Council and the Student Leaders who are supportive of the proposal.

Actions to be taken (part of our environmental policy/program):

1. Disallow use of plastic spoons, forks, disposable plastic food packs, and straws;
2. Disallow the entry of drinks using PET bottles;
3. Disallow the selling of drinks on PET bottles (to be part of the contract among Canteen Concessionaires); and
4. Symposium on environmental protection by LMCDAC or office handling the CHSF program (and to explain the move by the university).

Consequences of the actions to be taken:

1. Require students to use tumblers or any non-PET drinking utensils.
2. Require canteen concessionaire to provide a drinking station.
3. Require concessionaires to use only paper cups, lunch packs, and silver utensils for food.
4. The university provides water drinking stations (revive the old drinking fountain or purchase new ones to be stationed in strategic places).

OPPORTUNITIES:

1. For mass reproduction by TTBDO of SMU labeled tumblers for sale;
2. The tumblers themselves as promotional materials;
3. Inculcation to the Marian community of our responsibility toward the environment.

Respectfully yours,

MR. SAMUEL B. DAMAYON
Dean
Student Affairs and Services

APPROVED
JOHN OCTAVIOUS S. PALINA, Ph.D., DBA
University President
August 2022

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VPA Circular No. 12
AY 2022-2023

TO : SMU STAKEHOLDERS (students, employees, concessionaires, clients)

RE : SUSTAINING SMU AS A GREEN CAMPUS

DATE : 15 NOVEMBER 2022

The Office of the Dean of Student Affairs and Services (ODSAS) after due consultation with the canteen concessionaires and the support of the Student Central Council and other student leaders submitted this GREEN CAMPUS initiative in support of SMU's Clean , Healthy, Safe and Friendly (CHSF) Environmental Program. This was subsequently discussed and approved in the Extended Advisory Board on November 8, 2022.

==========

SUSTAINING SMU AS A GREEN CAMPUS

RATIONALE

Saint Mary's University through the years has been one of the advocates for environmental protection. With the mission to "steadfastly participate in the CICM advocacies of promoting multi-ethnicity, social justice, peace, and integrity of God's creation" we have made programs, projects, and activities for the protection of our environment. Two decades ago, the university crafted its Clean, Healthy, Safe and Friendly (CHSF) Environment Program aimed at practicing what we teach inside the classroom. Environmental advocacies are in line with Pope Francis' Encyclical *Laudato Si,* the United Nations *Sustainable Development Goals* and the CICM advocacy on Justice, Peace and Integrity of Creation.

With the growing environmental concerns, the government enacted environmental laws and one of these laws is **RA 9003: Ecological Solid Waste Management Act Of 2000**. This Act makes provision for efficient solid waste management such as volume reduction of wastes, environment-friendly disposal, composting, recycling, re-use, recovery, etc. It aims for the proper segregation, collection, transport, storage, treatment, and disposal of solid waste. It also concerns the protection of groundwater from pollution. Furthermore, **Nueva Vizcaya Provincial Ordinance No. 2018-155** likewise regulates the use of plastic bags, styrofoam and polystyrene plastics.

As observed, plastic bottles and styrofoam containers make up the biggest bulk of waste generated in the university which the Barangay haulers complain about and in some instances, refuse to haul due to lack of space in the Municipal and Barangay Materials Recovery Facilities

During the initial implementation of the CHSF Environmental Program in 1998, the use of plastic straws and cellophane containers was banned. Several higher education institutions subsequently banned the in-campus use of plastics and even the selling and bringing in of drinks contained in plastic bottles. During the Midyear 2022, it was observed that students brought their tumblers. This was due to the fact that most of them were not allowed to go out of campus (limited face-to-face guidelines). As part of the university's advocacy for promoting the integrity of God's creation and the implementation of our existing laws, this SMU GREEN CAMPUS drive will be implemented.

Room A203, Second Floor, Fr. Godfrey Lambrecht Building
SMU Main Campus, Ponce Street
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OBJECTIVES:

1. To reduce the volume of plastic wastes in the University;
2. To sustain our CHSF program by restricting the use of single use plastics; and
3. To instill and sustain among students, employees and other stakeholders the value of protecting the environment.

GUIDELINES:

1. Employees, students and other stakeholders are strongly encouraged to:
    a. Use reusable containers and utensils for food and drinks;
    b. use their reusable containers when buying food at the canteen; and
    c. refill their water containers from the drinking fountains to be installed in campus (a project of the SCC and NSTP).
2. Concessionaires and caterers will use only reusable utensils or biodegradable utensils such as paper plates, cups, etc.
3. The concerned units/offices/student groups shall continue to educate and remind the internal and external community to reduce the use of single use plastics.
4. The University shall:
    a. Disallow the entry and use of disposable plastics such as spoons, forks, cups, straws, containers and styrofoam food packs;
    b. Disallow the entry and selling of food and drinks in single use plastic (PET) containers;
    c. Require caterers to bring home wastes from their operations.

==========

The Grade School and Junior High School have already implemented parts of this **Green Campus** drive with positive results. There will be a transition period for our students, employees and concessionaires to progressively adjust to these new guidelines until the end of this semester. The ban on entry and use of single use PET (plastic) bottles, containers and styrofoam food containers, etc. will start on **January 1, 2023** which will be 25th year anniversary of the CHSF Program.

For your information and compliance.

JOHN G. TAYABAN, PHD
Vice President for Administration

Approved:

JOHN OCTAVIOUS S. PALINA, PHD
University President

INVENTORY OF WATER FOUNTAIN

WATER FOUNTAIN NUMBER	LOCATION
SMU #1	A Building
SMU #2	Balai Na Alumni
SMU #3	JVD Building
SMU #4	PDPO-TONUS GYM.
SMU #5	Hantson Building
SMU #6	Hantson Building
SMU #7	Gomburza Building
SMU #8	CICM Outside Court
SMU-JHS #9	D. Building
SMU-JHS #10	CICM Building
SMU-GSD #11	JP Building
SMU-GSD #12	J Building
ALFRESCO PARK #13	SHS Canteen

Prepared by: Mr. Ernesto D. Marabut Jr
Staff, SPCO

Review and Approved by: Mr. Hanson T. Villanueva
Head, SPCO

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THE LEVEL OF PRACTICE AND PERCEIVED EFFECTIVENESS OF THE SAINT MARY'S UNIVERSITY GREEN CAMPUS PROGRAM: A BASIS FOR THE IMPROVEMENT OF GREEN CAMPUS IMPLEMENTATION

A Practical Research

Presented to the

Senior High School Department

Saint Mary's University

Bayombong, Nueva Vizcaya

In Partial Fulfillment of

the Requirements for the Senior High School Grade 12

STEM Strand

by:

Hans Jeremy A. Valdez

Aisha Marie D. Alvendia

Jodie Angela E. Manglallan

Mikaela Athena I. Lodevico

Trina Leigh R. Manayan

November 2023

Acknowledgement

This research project's successful conclusion is a testament to the unwavering support and dedicated contributions of several remarkable individuals. As a result, we would like to express our heartfelt gratitude to those who have served as guiding lights and have offered their individual services in guiding us on this transformative journey.

We would like to thank Mr. Melencio G. Bernardino Jr. and the distinguished Deans of the various departments for their invaluable permissions that allowed us to conduct our research. Their openness paved the way for us to explore and develop our investigative skills, enriching our educational journey.

Mrs. Rachille Francis and Ms. Kristel Joy C. Dapiawen, our diligent research teachers, deserve our heartfelt gratitude. Our research would have been incomplete without their wisdom, guidance, and unwavering support. We also thank Mr. Mark Bernard C. San Juan, our esteemed research adviser, whose advice and expertise significantly contributed to the success of our research, as well as Mrs. Lady Valen Charon A. Dela Peña's invaluable assistance.

We are extremely grateful to our friends and family for their financial and moral support, which enabled us to embark on this research project. Their support and belief in our abilities has been a source of inspiration and motivation for us.

Last but not least, we thank the Divine presence in our lives, our Almighty Father, for providing us with unwavering support, strength, wisdom, and knowledge throughout the research journey. We seek His guidance constantly as we strive to excel in our academic pursuits and endeavors.

Dedication

We are honored to dedicate this research project to the individuals who have played pivotal roles in our academic pursuits in the spirit of profound gratitude and deep humility. Our beloved parents, first and foremost, whose unwavering support, guidance, and boundless love have been a constant source of inspiration and strength. Their sacrifices and encouragement have been instrumental in shaping our educational journey, and we will be eternally grateful.

We also recognize the Almighty God as the ultimate source of all wisdom, knowledge, and inspiration in our lives. We find meaning and purpose in our academic pursuits because of His grace and guidance.

Furthermore, our heartfelt gratitude goes to our dedicated teachers, mentors, and professors, who not only imparted knowledge but also nurtured our intellectual development. Their knowledge, patience, and encouragement have been invaluable on our academic journey.

Last but not least, we want to thank our friends and colleagues for their encouragement, camaraderie, and support throughout the research project. We have

shared the difficulties, victories, and discoveries that have enriched our academic experience.

We dedicate this research project to honor these individuals who have collectively contributed to our growth and accomplishments, recognizing that our successes are a reflection of the encouragement and inspiration we have received from those around us.

Abstract

Established in response to concerns about plastic waste from bottles and styrofoam containers, the SMU Green Campus Program, launched on January 1, 2023, reflects the institution's commitment to creating a cleaner, healthier, safer, and more environmentally friendly environment. Despite being in its early stages, our pioneering research evaluates the program's level of practice and its perceived effectiveness. Examining disparities in practice and perceived effectiveness among 250 student respondents, categorized by demographic profiles, the study employed descriptive-comparative and descriptive-correlational methodologies. Demographic factors like sex, religion, and socioeconomic status show no significant difference in program practice and perceived effectiveness. However, ethnicity, tenure, and academic departments exhibit notable differences in overall program effectiveness. Emphasizing the positive relationship between practice extent and perceived effectiveness, the study highlights the role of active student participation in adopting sustainable practices. A noticeable reduction in plastic usage signifies progress toward environmental improvement. Respondents advocate for increased waste receptacle availability to enhance waste disposal. The SMU Green Campus Program emerges as a potent tool for advancing ecological sustainability and communal well-being, influencing environmental awareness and behavior. In conclusion, our research advocates an unwavering commitment to the program, validating its moderate practice level and proven effectiveness.

Keywords: *SMU Green Campus Program, Environmental sustainability, Sustainable practices, Prohibition, Program effectiveness, Waste disposal, Plastic waste, Environmental betterment*

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CHAPTER I
INTRODUCTION

The environment is crucial for the survival and well-being of all living organisms, and it is vital to protect and preserve it for future generations. The global environment is facing numerous challenges, including pollution, waste management, environmental degradation, and biodiversity loss. The environment is affected by a range of factors, and it is important to address these factors to ensure the health and welfare of the planet and its inhabitants (United Nations, 2021).

The Philippines is the third-ranking contributor to plastic pollution in the world, with estimates ranging between 2.7 and 5.5 million metric tons generated each year, 20% of which leaks into the environment (Jambeck et al., 2015; Ocean Conservancy and McKinsey, 2015). The Philippines faces several problems related to plastic, including plastic pollution. The Philippines has a significant plastic pollution problem, with large amounts of plastic waste ending up in landfills, waterways, and oceans (Braganza, 2017). This pollution has adverse effects on marine life, ecosystems, and public health. About 74% of plastics that leak into the ocean were initially collected but escaped from open landfills that are located near vulnerable waterways (Philippine Marine Debris, n.d.).

Pollution can have far-reaching impacts on the environment, affecting ecosystems, human health, and the economy (World Health Organization, 2016). It is crucial to reduce pollution levels to protect the environment and promote sustainable development. One specific type of pollution is plastic pollution, which refers to the accumulation of plastic waste in the environment that causes harm to wildlife, natural habitats, and human health (United Nations Environment Programme, 2018). Plastic pollution can take many forms, such as plastic bags, bottles, straws, packaging, and microplastics, which are small plastic particles that are less than 5 millimeters in size (National Oceanic and Atmospheric Administration, 2020). Plastic waste can persist in the environment for hundreds of years (Andrady, 2017), and it can harm wildlife through ingestion or entanglement (Wright, Thompson, and Galloway, 2013). In addition to the aforementioned, Plastic pollution can also lead to the degradation of natural habitats (Jambeck et al., 2015), and it can negatively impact human health by contaminating food and water sources (Rochman et al., 2013). Borrelli and Ringma (2020) estimate that 19 to 23 million metric tons, or 11%, of plastic waste generated globally in 2016 entered aquatic ecosystems. Considering the ambitious commitments currently set by governments, annual emissions may reach up to 53 million metric tons per year by 2030. Plastic pollution has become a major environmental concern in recent years and can have serious and long-lasting effects on the environment leading to increased efforts to reduce plastic waste and improve waste management practices.

Which leads to rising temperatures, sea-level rise, and extreme weather events, which can have a profound impact on ecosystems and human communities. Climate change can have a profound impact on the environment, leading to changes in ecosystems, the loss of biodiversity, and impacts on human health and well-being. It is crucial to address climate change to mitigate its impact on the environment. Based on NOAA's temperature data, 2022 was the sixth-warmest year on record. The 2022 surface temperature was 1.55 °F (0.86 °Celsius) warmer than the 20th-century average of 57.0 °F (13.9 °C) and 1.90 ˚F (1.06 ˚C) warmer than the pre-industrial period (National Oceanic and Atmospheric Administration, 2023). These illustrate the ongoing impact of climate change on the planet, and the urgent need to address the issue through mitigation and adaptation strategies.

The Philippines has a limited capacity to manage its waste, with many areas lacking proper waste collection and disposal systems. This leads to significant amounts of plastic waste being left uncollected, ending up in waterways and the ocean (World Bank, 2019). The widespread use of single-use plastics in the country, such as plastic bags, straws, and food packaging contributes to the plastic pollution problem. Many of these items are used for only an abbreviated time before being discarded, and there are few alternatives available. The Philippines has limited infrastructure for recycling plastic waste, with only a small percentage of plastic waste being recycled (Abdullah et al., 2022). This is partly due to the lack of incentives for recycling, as well as limited government support for recycling programs.

With the increasing production and consumption of plastics worldwide, plastic waste has become a major environmental problem, as it can take hundreds of years to decompose and can cause harm to wildlife and ecosystems (United Nations Environment Programme, n.d.). In 2017, less than 1% of the seven billion tons of plastic waste generated globally had been recycled (Abdullah et al., 2022). Millions of tons of plastic waste are lost to the environment or are transported thousands of kilometers to be burned or dumped (United Nations Environment Programme, n.d.). Proper waste management of plastic waste requires a comprehensive approach that involves reducing plastic use, collecting, and recycling plastic waste, proper disposal, and promoting sustainable alternatives including biodegradable plastics, compostable products, and other eco-friendly materials. By adopting these practices, the impact of waste on the environment and human health can be reduced.

Government Initiatives

To address these issues, the Philippine government has implemented various measures, including the imposition of a ban on single-use plastics in specific areas, the enhancement of public awareness regarding plastic pollution, and the support for recycling programs. Several cities and provinces in the Philippines have enacted ordinances to regulate the usage of plastic bags and other single-use plastics within their jurisdiction. For instance, Makati City passed Ordinance No. 03-095 in 2003, which is a waste management ordinance mandating a reduction in the stock of plastic and Styrofoam products over a specified period (Makati City: Ordinance No. 03-095,

2003). Muntinlupa City implemented Ordinance No. 10-109 in 2010, which prohibits the use and sale of plastic bags for dry goods and restricts their use as secondary packaging for wet goods. It also emphasizes the promotion of biodegradable packaging (Muntinlupa City: Ordinance No. 10-109, 2010). Muntinlupa City further addressed the issue with Ordinance No. 18 in 2012, which prohibits the use of plastic bags and Styrofoam for primary packaging of dry goods, while encouraging customers to bring reusable containers (Muntinlupa City: Ordinance No. 18, 2012). Similarly, Pasig City enacted Ordinance No. 9 in 2010, banning the use of plastic on dry goods and placing loose regulations on plastic usage for wet goods, with exemptions for fast-food establishments (Pasig City: Ordinance No. 9, 2010). Mandaluyong City followed suit with Ordinance No. 523 in 2013, imposing penalties and entrusting enforcement to the Mandaluyong City Environment Management Office (Mandaluyong City: Ordinance No. 523, 2013). In 2020, Paranaque City implemented Ordinance No. 40, which banned the use of single-use plastic for dry goods and the distribution of various plastic products (Paranaque City: Ordinance No. 40, 2020).

Despite the adoption of regulations in multiple cities, the issue of plastic waste and waste management persists, indicating the need for comprehensive and national-level approaches (Schachter & Karasik, 2022). Schools in the Philippines have also taken steps to regulate the use of single-use plastics on their premises Dasmarinas City schools implemented Division Order No. 01 in 2019, which directs students,

teachers, and DepEd personnel to refrain from using disposable plastic containers/utensils and encourages the use of reusable alternatives (Dasmarinas City: Division Order No. 01, 2019). Similarly, De Lasalle University enacted a General Policy on the Ecological Management of Solid Waste, including a ban on single-use plastics on campus, with a memo issued by the Chancellor reinforcing the importance of reducing plastic waste (De Lasalle University: General Policy).

In 2016, the Provincial Government of Nueva Vizcaya initiated efforts to pass a province-wide "No Plastic" law to prohibit the use of plastic bags and promote proper waste disposal and segregation (Manila Times, 2016). Furthermore, in 2019, Ordinance No. 2018-155 was implemented, which regulates the use, sale, and distribution of plastic bags, styrofoam, and polystyrene plastics as packaging and handling materials within the province of Nueva Vizcaya. This ordinance excludes biodegradable plastics and plastics that are economically directed through reuse and recycling. It also excludes plastics incorporated within products and those used in specific industries (Sangguniang Panlalawigan of Nueva Vizcaya: Ordinance No. 2018-155, 2019).

Clean, Healthy, Safe, and Friendly Program

According to the SMU – CHSF Manual (2016), Saint Mary's University has implemented policies and programs aimed at promoting sustainability and an eco-friendly school environment. Through the leadership of a core group, the university

underwent training and seminars to establish the CHSF program. On November 20, 1998, the program was officially launched, with a mission to create and maintain a safe, healthy, and positive learning environment for students, faculty, staff, and the community, emphasizing environmental stewardship for present and future generations. As part of the implementation, the use of plastic straws and cellophane containers was prohibited.

The introduction of the CHSF program brought about significant changes and transformations on campus. The establishment of the Environmental Office (EMO), later renamed the Center for Environmental Management, Training and Research (CEMTAR), played a crucial role in laying the foundation for the CHSF program. This office collaborated with other university units in developing the program (Dacles et al., 2022). The CHSF program was designed as the university's proactive response to address the emerging challenges of climate change and to promote a sustainable future.

SMU Green Campus Program

Plastic bottles and Styrofoam containers make up the biggest bulk of waste generated in the university which the Barangay haulers complain about and in some instances, refuse to haul due to lack of space in the Municipal and Barangay Materials Recovery Facilities. As an initiative and in support of SMU's Clean, Healthy, Safe, and Friendly Program the VPA Circular No.12 AY 2022-2023 states the approval of the

SMU Green Campus Program that was implemented last January 1, 2023. This program bans the entry and use of single-use plastic (PET) bottles, containers, Styrofoam food containers, etc. The program aims to reduce the volume of plastic waste in the university. To sustain the CHSF program by restricting the use of single-use plastics and to instill and sustain among students, employees, and other stakeholders the value of protecting the environment. Thus, employees, students, and other stakeholders are encouraged to use reusable containers and utensils for food and drinks and refill their water containers from the drinking fountains. The initiative came from the Student Central Council and local school councils, which aim to reduce the volume of plastic waste in the University and instill the value of protecting the environment (The Marian, 2023).

Although this SMU Green Campus Program has been implemented and practiced for less than a school year, the program must be assessed which is the aim of this study. This study seeks to determine the level of practice and the level of effectiveness of the SMU Green Campus Program.

The antecedent study, which served as the foundational investigation in this research, focused on the adherence to Clean, Healthy, Safe, and Friendly practices. In contrast, the current study focuses on a recent environmental initiative, the Green Campus Program. This program, which is currently aimed at prohibiting single-use plastics within the university. The researchers of this study hope to determine the

discernible levels of practice and level of perceived effectiveness with the SMU Green Campus program across the various departments on the SMU main campus.

This research endeavors to address a conspicuous gap in the existing academic literature, as it represents the inaugural investigation delving into the depth of student's practice within the SMU Green Campus Program, coupled with an evaluative scrutiny of its perceived effectiveness. The outcomes yielded by this study are poised to serve as foundational knowledge, furnishing a platform for subsequent endeavors aimed at refining the implementation of the program.

The paramount importance of this study is underscored by its potential to unravel dimensions of the program that necessitate refinement and enhancement, thereby contributing to its overall effectiveness and extending its environmental impact. Through a meticulous analysis of both perceived effectiveness and the level of program practice, our objective is to discern not only the areas where the program excels but also to pinpoint specific facets that warrant targeted improvement. Consequently, this research assumes a pivotal role in the overarching goal of fostering a sustainable and environmentally conscious campus environment within the academic milieu of SMU.

Conceptual Framework

Senior high school students have the potential to exert a significant influence on environmental practices through a variety of actions and initiatives. They can take

the initiative to organize campaigns, workshops, and presentations aimed at educating their peers, teachers, and the wider community about environmental concerns, thereby fostering understanding and promoting the adoption of sustainable practices (Thielges & Topcu, 2019). In addition, they can advocate for the implementation of recycling programs within their schools and actively participate in waste reduction strategies. Such efforts may involve the establishment of recycling bins, the coordination of recycling drives, and the dissemination of information about the importance of reducing the use of single-use plastics (Savahl & Oosthuizen, 2019). When comparing college students to senior high school students, the former has likely encountered a wider range of experiences. These experiences may include internships, volunteer work, or research projects related to environmental issues, which can deepen their understanding and commitment to environmental practices (Astin et al., 2000).

From a biological standpoint, hormonal and physiological differences between males and females can impact their attitudes and behaviors toward the environment. For instance, research indicates that males typically possess higher levels of testosterone, which is associated with risk-taking behavior and dominance, while females tend to have higher levels of estrogen, which can be linked to nurturing and caregiving tendencies (Li, 2013). These biological distinctions contribute to variations in attitudes and approaches to environmental practices. Psychologically, males and females may exhibit different cognitive styles and decision-making

processes that influence their perspectives on the environment. For example, females tend to score higher in measures of empathy and interconnectedness with nature, leading to a greater concern for environmental issues (Levinson, 2012). Moreover, females often demonstrate more cautious and long-term thinking, whereas males may be more inclined towards immediate rewards and short-term gains (Schultz, 2000). These cognitive disparities shape the priorities and strategies individuals adopt in their environmental practices.

Moreover, when considering students' tenure at SMU starting from Senior High School, the number of years spent in the CHSF Environment Program (1 year or below, 2-3 years, 4-5 years, or above 5 years) can impact their adherence and practice to the newly implemented program, SMU Green Campus. A previously implemented program can provide a sense of continuity and consistency in environmental practices. If individuals have already developed habits and routines based on the previous program, they may find it easier to adapt to the new program by building upon existing behaviors. This can help maintain a momentum of positive environmental action (Blowers et al., 2009). If individuals have participated in a previous program, they may have acquired knowledge, skills, and awareness about environmental practices. This prior learning can be transferred to the new program, enabling participants to have a head start and potentially deepen their understanding of environmental issues. It can also enhance their ability to implement new practices effectively (Bocken et al., 2014).

The religious sector is another variable to be taken into account. Religious teachings often emphasize the moral and ethical responsibilities of humans towards the environment. Many religions view the natural world as a sacred creation and advocate for its protection and preservation. This can influence individuals to adopt environmentally-friendly practices, such as conservation, sustainable resource use, and responsible stewardship (Taylor et al., 2013). Religious sectors can play a crucial role in promoting environmental activism and advocacy. Religious communities often have a strong sense of collective identity and mobilize their members to address environmental issues. They may organize campaigns, engage in lobbying efforts, or collaborate with environmental organizations to promote environmental justice and sustainability (Grim et al., 2014).

Additionally, ethnicity can be a determining factor in environmental approaches, as different ethnic groups possess distinct cultural beliefs and values that influence their attitudes and behaviors toward the environment. In the Philippines, the preservation of unique biodiversity relies on the knowledge, innovations, and practices of indigenous and local communities that have direct contact with nature (Global Environment Facility, 2019).

Finally, socioeconomic status can significantly influence environmental approaches at both the individual and community levels. Individuals with higher socioeconomic status typically have greater access to resources and the ability to afford more sustainable and environmentally-friendly products and practices. For

instance, they may invest in solar panels or energy-efficient appliances to reduce their environmental footprint. Furthermore, individuals with higher socioeconomic status tend to possess a heightened awareness of environmental issues and the impact of human activities on the environment. Consequently, they are more likely to engage in environmentally-friendly behaviors, such as recycling or reducing energy consumption. Conversely, individuals with lower socioeconomic status may face financial constraints and limited access to sustainable alternatives, leading to more environmentally harmful behaviors (Hughey et al., 2020). Low-income communities often experience a greater concentration of environmental hazards, such as pollution and toxic waste, resulting in a stronger focus on environmental justice issues and a

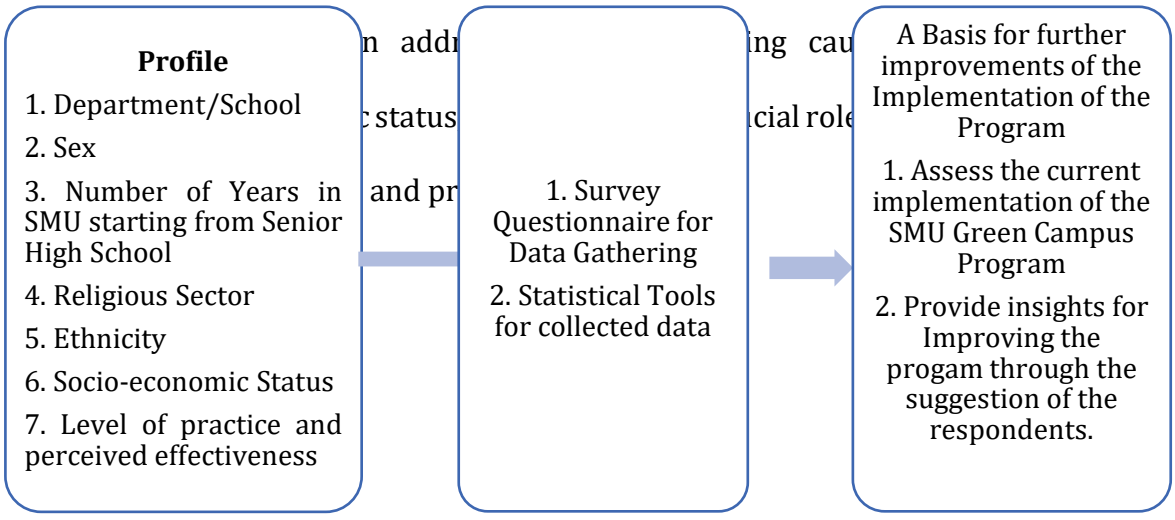


Figure 1: *Research Paradigm*

Figure 1 illustrated the conceptual framework employed in this research study, following the Input, Process, and Output (IPO) format. The first section of the framework represented the study's input, focusing on the collection and utilization of the respondents' demographic profile. This information served as a crucial requirement for the study. The second section of the framework represented the study's process and outlined the specific steps and procedures followed during the research. Lastly, the third section of the framework highlighted the study's output, specifying the intended utilization of the research results.

To gather the necessary demographic information, respondents were requested to complete a questionnaire. The questionnaire included items related to their department, sex, number of years at SMU, religious affiliation, ethnicity, and socio-economic status. Once the questionnaire was validated by the validators, data collection commenced at Saint Mary's University. The respondents were drawn from various departments, ranging from senior high to college levels.

Upon completion of the questionnaire, the researchers collected the filled-out forms from the respondents. The collected data was subjected to analysis using the SPSS software. The findings derived from this analysis served as a basis for enhancing the implementation of the program, enabling it to effectively address the challenges that were prevalent in the 21st century.

Statement of the Problem

This study aims to determine the level of practice and effectiveness of the SMU Green Campus Program. It specifically seeks to answer the following questions:

1. What is the respondents' level of practice in the SMU Green Campus Program?
2. What is the respondents' level of perceived effectiveness of the SMU Green Campus Program?
3. Is there a significant difference in the level of practice of the SMU Green Campus Program if the respondents are grouped according to the:

   3.1 sex;

   3.2 department;

   3.3 socio-economic status;

   3.4 number of years at SMU starting from Senior High School;

   3.5 ethnicity; and

   3.6 religious sector?
4. Is there a significant difference in perceived effectiveness of the SMU Green Campus Program if the respondents are grouped according to the:

   3.7 sex;

3.8 department;

3.9 socio-economic status;

3.10 number of years at SMU starting from Senior High School;

3.11 ethnicity; and

3.12 religious sector?

5. Is there a significant relationship between the level of practice and the level of perceived effectiveness of the SMU Green Campus Program?
6. What improvements in the campus did the respondents observe after the program was implemented?
7. What are the suggestions of the respondents in improving the implementation of the SMU Green Campus Program?

Statement of Hypotheses

1. There is no significant difference in the level of practice of the SMU Green Campus Program if the respondents are grouped according to the department, socio-economic status, ethnicity, religious sector, number of years in Saint Mary's University, and sex.
2. There is no significant difference in the level of perceived effectiveness of the SMU Green Campus Program if the respondents are grouped according to the department, socio-economic status, ethnicity, religious sector, number of years in Saint Mary's University, and sex.

3. There is no significant relationship between the level of practice and the level of effectiveness of the SMU Green Campus Program.

CHAPTER II

METHODOLOGY

Research Design

This study utilized both quantitative and qualitative designs. Descriptive-comparative-correlational methods were employed in the quantitative section of the study. Descriptive-comparative was used to determine if there was a significant difference in the level of practice and perceived effectiveness of the SMU Green Campus Program when the respondents were grouped according to their demographic profiles. Descriptive-correlational was used to ascertain if there was a significant relationship between the level of practice and the level of perceived effectiveness of the SMU Green Campus Program.

In addition to the aforementioned methods, a survey questionnaire with a 4-point Likert's scale was used to collect quantitative responses from the respondents to understand their level of practice with the students and the level of perceived effectiveness of the SMU Green Campus Program. Qualitative responses using open-ended questions were collected to gain a better understanding of the students'

observations after the program was implemented at the University. Thematic analysis was employed to analyze and interpret the respondents' answers in the qualitative part of the questionnaire. Furthermore, the study also gathered suggestions and recommendations from the respondents to improve the implementation of the SMU Green Campus Program.

Research Locale

Since the research was about the level of practice of the students of SMU on the main campus and the perceived effectiveness of the program on the school campus, the school itself served as the research environment of the study.

Saint Mary's University Main Campus is located in Bayombong, Nueva Vizcaya, Region II. It is a premier CICM Catholic educational institution. Saint Mary's University's main campus consisted of five departments: Senior High School Department (SHS), School of Health and Natural Sciences (SHANS), School of Teacher Education and Humanities (STEH), School of Accountancy and Business (SAB), and School of Engineering, Architecture, and Information Technology (SEAIT). Each of Saint Mary's University's departments, including the Grade School and Junior High School, had its own campuses. This study only focused on the main campus of Saint Mary's University.



Figure 2. *Saint Mary's University Main Campus*

Research Respondents

The students from the different departments of the SMU main campus were the respondents for data and information gathering. More specifically, the selection of respondents was done through quota sampling, chosen from the various departments that the school had, including the Senior High School Department (SHS), School of Health and Natural Sciences (SHANS), School of Teacher Education and Humanities (STEH), School of Accountancy and Business (SAB), and School of Engineering, Architecture, and Information Technology (SEAIT). Therefore, this research study had 50 respondents from the different departments.

Section 1. Frequency and Percentage of Demographic Profile.

Table 1. *Saint Mary's University Main Campus Students from the SHS, SEAIT, SAB, STEH, and SHANS department's demographic profile*

Demographic Profile	Groups	Frequency	Percentage
Sex	Male	125	50%

	Female	125	50%
Total		250	100%
Strand	SHS	50	20%
	SEAIT	50	20%
	STEH	50	20%
	SHANS	50	20%
	SAB	50	20%
Total		250	100%
Ethnicity	Ilocano	148	59.2%
	Tagalog	58	23.2%
	Ifugao	30	12.0%
	Igorot	5	2.0%
	Others	9	3.6%
Total		250	100%
Religious Sector	Roman Catholic	165	66%
	Iglesia ni Christo	14	5.6%
	Born Again	31	12.4%
	Methodist	17	6.8%
	Others	23	9.2%
Total		250	100%
Years in SMU (starting from Senior High)	1-2 Years	172	68.8%
	3-4 Years	51	20.4%
	5 Years and above	27	10.8%

Total		250	100%
Socioeconomic Status	Class AB	39	15.6%
	Class C	40	16.0%
	Class D	36	14.4%
	Class E	135	54.0%
Total		250	100%

Table 1 presents a comprehensive analysis of the demographic composition of students across five distinct departments at SMU's main campus. The demography is systematically disaggregated by sex, department, ethnicity, religious affiliation, duration of enrollment at SMU from Senior High, and socioeconomic status. Notably, the gender distribution among respondents is conspicuously balanced, as 125 participants each identify as male and female, representing half (50%) of the total sample size.

Contrastingly, a uniform distribution is discernible across the various departments, with each department boasting an equitable representation of 50 respondents, culminating in a cumulative total of 250 participants. In terms of ethnicity, a preponderance of respondents identifies as Ilocano, comprising the majority share (59.2%), followed by Tagalog (23.2%), Ifugao (12.0%), and a minority identifying as Igorot (2.0%). Additionally, a noteworthy of respondents delineate

unique ethnic backgrounds, with Gaddang, Aeta, and Bicolano (3.6%) being the primary ethnic groups identified.

Regarding religious affiliation, Roman Catholic (66%) emerges as the predominant faith, commanding of the respondents, succeeded by Born Again (12.4%). It also includes respondents from Methodist (6.8%) and INC (5.6%). Moreover, respondents profess distinct religious affiliations, encompassing Pentecost, Jehovah's Witnesses, Muslim, Church of Christ, and Church of God (9.2%).

Examining the temporal aspect of enrollment, the majority of respondents initiated their tenure at SMU during their Senior High years (68.8%). In contrast, a minority of respondents have been enrolled for five years or more (10.8%).

Concluding the analysis, socioeconomic status reveals a notable distribution among respondents, with Class E (54.0%) comprising the largest proportion. Subsequently, Class C (16.0%) follows, Class AB (15.6%), and Class D (14.4%) constituting the smallest cohort. This meticulous examination underscores the intricate demographic composition characterizing the student body at SMU's main campus.

Research Instruments

The researchers developed the questionnaire for the study based on the guidelines and objectives of the SMU Green Campus program, as stated in the VPA Circular No.12 AY 2022-2023. A survey questionnaire was used to collect and gather

the necessary data for the study. The questionnaire consisted of four (4) parts, including the demographic profile of the respondents, a quantitative section divided into two: one set of closed-ended questions for assessing the level of practice, and a separate set of questions to assess the perceived level of program effectiveness, using a Likert's scale. Lastly, there was a qualitative section with two (2) open-ended questions for the respondents.

In the first part of the questionnaire, the demographic profile of the respondents was gathered. Personal information, including the participant's name (optional), sex, department, ethnicity, religious sector, number of years in SMU, and socio-economic status, was requested.

The second part of the questionnaire aimed to gather quantitative responses from the participants using a 4-point Likert's scale. The first quantitative section was used to determine the level of students' practice of the SMU Green Campus Program, with labels 1 as "never," 2 as "sometimes," 3 as "very often," and 4 as "always." This part comprised eleven (11) questions that mainly inquired about how the students practiced the program in accordance with the guidelines.

A separate quantitative section was provided to determine the perceived level of program effectiveness. A 4-point Likert's scale was used with labels 1 as "hardly observed," 2 as "sometimes observed," 3 as "adequately observed," and 4 as "strictly

observed." This part comprised ten (10) questions that focused on students' observations of the campus in line with the program's objectives.

The fourth part aimed to collect qualitative responses, where two (2) open-ended questions were posed to the study's respondents. This section provided a more detailed and elaborate account of the respondents' observations on the campus after the program was implemented, along with their suggestions to further enhance the program's implementation.

The research questionnaire, which was developed, underwent initial and final validation by the research teacher, validator, adviser, and coordinator, receiving their approval and validation.

Table 2. *Result of Reliability Test for Level of Practice*

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.859	.867	15

Table 2 shows the result of the reliability statistics for level of practice. Based on the table, Cronbach's alpha is equal to 0.859. Its internal consistency is equivalent to **good** ($\alpha \geq 0.8$). Therefore, the questionnaire is reliable.

Table 3. *Result of Reliability Test for Level of Effectiveness*

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.910	.912	11

Table 3 shows the result of the reliability statistics for level of practice. Based on the table, Cronbach's alpha is equal to 0.910. Its internal consistency is equivalent to **excellent** ($\alpha \geq 0.9$). Therefore, the questionnaire is reliable.

Data Gathering Procedure

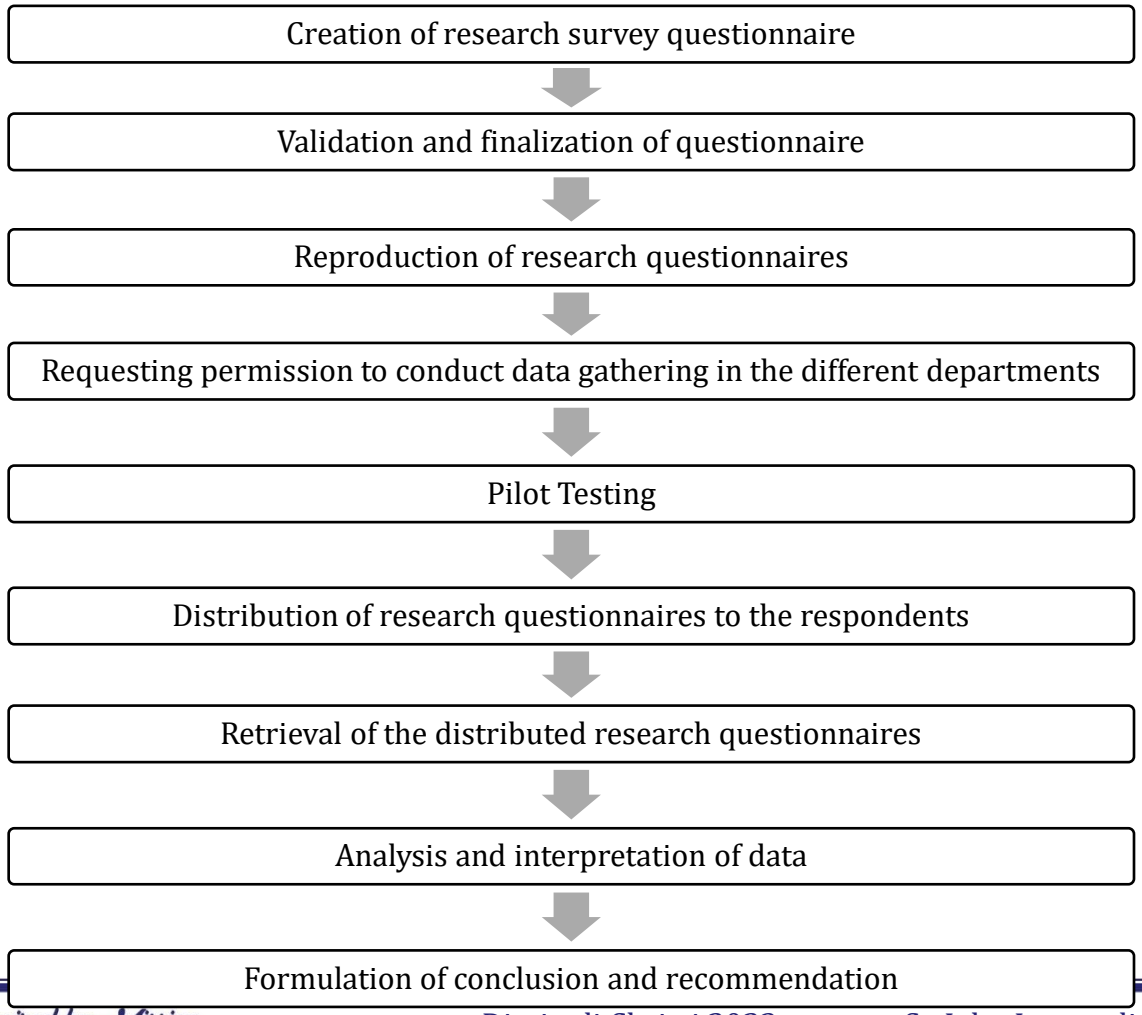


Figure 3. *Flowchart of the Study*

The study's data-gathering procedure began with the creation of the research survey questionnaire. The research questionnaire, which had been developed, underwent initial and final validation by the research teacher, validator, adviser, and coordinator, receiving their approval and validation. Grammatical, spelling, and punctuation errors were examined in the questionnaire to avoid further confusion and misinterpretation among the respondents. After the validation of the questionnaire, the researchers reproduced hard copies of the questionnaire. The researchers requested authorization from the deans of multiple college departments to collect data from the students enrolled in their respective departments. Upon granting permission, the pilot testing of the questionnaires began. The questionnaire was distributed physically to the students. This was followed by the collection and tabulation of the data provided by the participants using Microsoft Excel software. Furthermore, statistical tools using the SPSS software were used to analyze and interpret the data and information gathered from the survey. To complete the investigation, the researchers presented conclusions and suggestions that were intended to inform the readers about the findings and results found in the study.

Treatment of Data

This study utilized a descriptive-comparative-correlational approach to address the research questions. Hence, to treat the data that was gathered, the following tools and techniques were used:

a) Frequency and percentage distribution were used to evaluate the demographic data of the questionnaires.
b) Mean scores and standard deviation of the 4-point Likert's scale were computed to determine the level of practice and level of perceived effectiveness of the SMU Green Campus program. Therefore, the mean score for each descriptor was interpreted using the following systems.

Table 4. *Likert Scale Interpretation for the Level of Practice*

Mean Score	Qualitative Interpretation	Qualitative Description
3.50 – 4.00	Always	Practiced to a great extent
2.50 – 3.49	Very Often	Practiced to a moderate extent
1.50 – 2.49	Sometimes	Practiced to a very little extent
1.00 – 1.49	Never	Not practiced at all

Table 5. *Likert Scale Interpretation for the Level of Perceived Effectiveness*

Mean Score	Qualitative Interpretation	Qualitative Description
3.50 – 4.00	Strictly Observed	Very Effective

2.50 – 3.49	Adequately Observed	Effective
1.50 – 2.49	Sometimes Observed	Moderately Effective
1.00 – 1.49	Hardly Observed	Not Effective

c) The significant difference in the level of practice and the level of perceived effectiveness concerning demographic profile variables of the participants was determined using a Independent sample t-test for sex and a One-way ANOVA for the department, ethnicity, religious sector, number of years at SMU, and socioeconomic status.

d) Pearson's R correlation coefficient was used to determine the significant relationship between the level of perceived effectiveness and the level of practice of the SMU Green Campus Program.

e) Thematic Analysis is a method for analyzing qualitative data that involves reading through a set of data and looking for patterns in the meaning of the data to find themes (Villegas, 2022). Hence, a thematic analysis was used to further understand and analyze the respondents' qualitative responses.

CHAPTER III

RESULTS AND DISCUSSIONS

This chapter presents the data gathered about the present research on the level of practice and effectiveness of the SMU Green Campus Program. Moreover, the data gathered was analyzed using the Statistical Package for Social Sciences (SPSS) version 22. In addition, the corresponding interpretation was arranged in accordance with the research problems. The chapter is composed of six sections and 17 tables.

Section 2. The level of practice and effectiveness of the SMU Green Campus program.

Table 6.

Respondents' level of practice of the SMU Green Campus Program

Statements	Mean	SD	Descriptive

I use reusable containers for food and drinks.	2.90	0.82	Practiced to a moderate extent
I use reusable utensils for food and drinks.	2.72	0.90	Practiced to a moderate extent
I bring my own reusable containers when buying food at the canteen.	2.13	0.99	Practiced to a very little extent
I bring my own water tumbler or reusable water containers.	3.30	1.01	Practiced to a moderate extent
I don't bring disposable plastics such as spoons, forks, cups, straws, containers, and styrofoam food packs inside the campus.	2.76	1.14	Practiced to a moderate extent
I don't bring food and drinks in single-use plastic containers on campus.	2.57	1.01	Practiced to a moderate extent
I strictly follow the guidelines of the SMU Green Campus program.	3.38	0.75	Practiced to a moderate extent
I see authorities follow the protocols and guidelines of the SMU Green Campus Program.	3.23	0.76	Practiced to a moderate extent
I see the teachers/faculty and students following the guidelines of SMU Green Campus.	3.14	0.76	Practiced to a moderate extent
The University disallows the entry and use of disposable plastics such as spoons, forks, cups, straws, containers, and styrofoam food packs.	3.34	0.84	Practiced to a moderate extent
The University disallows the entry and selling of food and drinks in single-use plastic (PET) containers.	3.08	0.92	Practiced to a moderate extent
I notice that concessionaires and caterers on-campus use only reusable utensils or biodegradable utensils.	3.15	0.82	Practiced to a moderate extent

I encourage others (peers, colleagues, etc.) to use reusable containers and reduce single-use plastics on campus.	3.05	0.90	Practiced to a moderate extent
The entry and selling of food and drinks in single-use plastic (PET) containers are prohibited on campus.	3.13	0.87	Practiced to a moderate extent
I refill my water container from the drinking fountains rather than buying bottled water.	2.96	1.06	Practiced to a moderate extent
Overall Mean	**2.99**	**0.46**	**Practiced to a moderate extent**

Legend: 3.50 – 4.00 (Practiced to a great extent), 2.50 – 3.49 (Practiced to a moderate extent), 1.50 – 2.49 (Practiced to a very little extent), 1.00 – 1.49 (Not practiced at all)

Illustrated in table 6 are the means corresponding to various statements designed to assess the level of practice among respondents participating in the SMU Green Campus program. Utilizing Likert's 4-point scale, the overall mean of 2.99 suggests a moderate extent of program practice among students. The majority of the statements' means fall within the range of 2.50 to 3.49, indicating that most respondents actively embrace the principles and activities associated with the SMU Green Campus initiative, albeit with a moderate level of commitment. Statements four, seven, and ten, specifically "I bring my own water tumbler or reusable water containers," "I strictly follow the guidelines of the SMU Green Campus program," and "The University disallows the entry and use of disposable plastics such as spoons, forks, cups, straws, containers, and styrofoam food packs," respectively, have been found to possess the highest mean values. This observation indicates that the surveyed individuals are more frequently engaging in the practices delineated in

these statements compared to other surveyed practices. Notably, statement number three stands out by falling within the lower range of 1.50 to 2.49, suggesting less enthusiasm or commitment among respondents when it comes to bringing reusable containers when purchasing food at the canteen—an aspect that may warrant further attention or improvement.

In a broader context, these findings indicate that the SMU Green Campus program has achieved moderate traction among participants, signifying a commendable level of program practice following its implementation. Moreover, the research conducted by Dacles et al. (2022) suggests that behavioral guidelines on the school grounds are also moderately practiced. Some respondents perceive that the school grounds are not entirely free of litter, and not all university students and employees earnestly participate in the program's implementation. This aligns with a previous study on the CHSF program, revealing similarities in student practices between CHSF and the Green Campus initiatives.

Table 7.

Level of perceived effectiveness of the SMU Green Campus

Statements	Mean	SD	Descriptive
Fewer plastic utensils are seen inside the campus.	2.94	0.89	Effective
Less disposable containers are seen inside the campus.	2.88	0.82	Effective
More students, faculty, staff, and LDR staff are seen using reusable containers.	3.01	0.81	Effective

The concessionaires and caterers stopped selling food and drinks in single-use plastics.	2.94	0.99	Effective
No plastic waste is scattered inside the campus.	2.64	0.91	Effective
Less plastic bottles and styrofoam containers are seen inside the campus.	2.90	0.84	Effective
Cleanliness of the school grounds, classrooms, and offices is maintained all the time.	2.99	0.86	Effective
The program consistently restricts the use of single-use plastics as part of the Clean, Healthy, Safe, and Friendly program.	3.17	0.83	Effective
Waste materials are managed efficiently in all areas of the school campus.	3.00	0.80	Effective
More students, faculty, and staff are seen using eco-friendly or reusable bags on campus.	3.07	0.78	Effective
The program effectively monitors and enforces restrictions on single-use plastics on campus.	3.09	0.78	Effective
Overall Mean	**2.97**	**0.54**	**Effective**

Legend: 3.50 – 4.00 (Very Effective), 2.50 – 3.49 (Effective), 1.50 – 2.49 (Moderately Effective), 1.00 – 1.49 (Not Effective)

Illustrated in table 7 are the means associated with statements designed to evaluate the perceived effectiveness of the SMU Green Campus program. Utilizing Likert's 4-point scale, the overall mean of 2.97 suggests that the program is effective in achieving its objectives. The means of the individual statements, falling within the range of 2.50 to 3.49, consistently indicate that while the program is making a meaningful impact, there is room for improvement. Statements eight, ten, and eleven, specifically "The program consistently restricts the use of single-use plastics as part of the Clean, Healthy, Safe, and Friendly program," "More students, faculty, and staff

are seen using eco-friendly or reusable bags on campus," and "The program effectively monitors and enforces restrictions on single-use plastics on campus," respectively, have yielded the highest mean values in terms of perceived effectiveness. Conversely, statement five, "No plastic waste is scattered inside the campus," exhibits the lowest mean.

The elevated mean values associated with statements eight, ten, and eleven indicate a heightened perception among respondents regarding the program's perceived effectiveness in regulating the use of single-use plastics, encouraging the widespread adoption of eco-friendly bags, and ensuring the robust enforcement of restrictions on plastic usage within the campus.

In contrast, the comparatively lower mean attributed to statement five suggests a potential area of concern regarding the perceived effectiveness of the program in maintaining a litter-free campus environment. This observation underscores the importance of addressing waste management practices to uphold a cleaner and more environmentally responsible campus landscape. Such considerations are pivotal for enhancing the overall effectiveness and sustainability of the instituted environmental program. Although not reaching the highest levels on the Likert scale, these results imply that the Green Campus initiative is positively influencing the university community and contributing to sustainability efforts. They underscore the tangible results of SMU's commitment to environmental

sustainability, marking the program as successful in fostering a greener and more eco-conscious campus.

Drawing insights from the study by Dacles et al. (2022), an interview with a faculty member highlights the importance of strong program implementation, emphasizing that the effectiveness is not solely dependent on the program's content but on the students' cooperation and support. This aligns with the recommendations of respondents in the current study, suggesting that for the program to enhance its effectiveness, there should be a stricter implementation—an aspect crucially emphasized in both studies.

Section 3. The difference in the level of practice of the SMU Green Campus Program if the respondents are grouped according to sex, strand, ethnicity, religious sector, number of years in SMU, and socioeconomic status

Table 8.

Differences in the level of practice of SMU Green Campus Program according to the respondents' sex

	Male		**Female**		**t**	**p**
Sex	M	SD	M	SD	-1.113*	0.295
	2.9557	.4747	3.0203	.4416		

**Not significant (p>0.05)*

Displayed in table 8 is the disparity in the level of practice within the SMU Green Campus Program concerning respondents' sex. The outcomes of the independent sample t-test reveal a p-value of 0.295, surpassing the accepted value of p (<0.05), thereby prompting the acceptance of the null hypothesis. This indicates the absence of a significant difference between respondents' sex and their level of practice in the SMU Green Campus Program. The implication is that male and female students demonstrate comparable adherence to the guidelines of the Green Campus program. However, when examining the mean scores, female ($\boldsymbol{\mu}$ = 3.02) students exhibit a higher mean score for the level of practice within the Green Campus Program in comparison to their male ($\boldsymbol{\mu}$ = 2.96) counterparts.

Nonetheless, this outcome stands in contrast to Levinson's (2012) study, which posited that biological distinctions contribute to variations in attitudes and approaches to environmental practices. According to Levinson, these distinctions may manifest in differing cognitive styles and decision-making processes between males and females, influencing the respondents'' perspectives on environmental issues. For instance, females often score higher in measures of empathy and interconnectedness with nature, fostering a greater concern for environmental matters. The observed discrepancy in the current study prompts a reconsideration of the role of gender in influencing attitudes towards environmental practices, challenging the expectations set by existing literature.

Table 9.

Differences in the level of practice of SMU Green Campus Program according to the respondents' department

Factors	Groups	f	Mean	SD	F-value	p-value
Departments	SHS	50	2.81	.5694	4*	0.010
	SHANS	50	2.97	.4453		
	SEAIT	50	3.13	.4583		
	STEH	50	2.98	.3621		
	SAB	50	3.04	.3858		

**Significant (p<0.05)*

Illustrated in table 9 is the disparity in the level of practice within the SMU Green Campus Program categorized by department. Employing one-way Analysis of Variance (ANOVA), the obtained p-value of 0.010 falls below the accepted value of p (<0.05), signifying a statistically significant difference in program practice across various departments. Subsequent to the post-hoc test, SEAIT ($\boldsymbol{\mu}$ = 3.13) has higher level of practice compared to SHS ($\boldsymbol{\mu}$ = 2.81). Although both departments shows a moderate extent of practice.

This finding holds notable implications for the SMU Green Campus Program, emphasizing that diverse departments within the university community are engaging with the program in distinctive ways. It suggests that adopting a more targeted approach to sustainability initiatives may yield more positive results and foster increased participation and engagement.

Examining the potential influence of senior high school students on environmental practices, they possess the capacity to impact these practices through various actions and initiatives. They may take the lead in organizing campaigns, workshops, and presentations to educate peers, teachers, and the wider community about environmental concerns, thereby promoting understanding and the adoption of sustainable practices (Thielges & Topcu, 2019). Comparatively, college students, having encountered a broader range of experiences such as internships, volunteer work, or research projects related to environmental issues, may deepen their understanding and commitment to environmental practices (Astin et al., 2000).

Table 10.

Differences in the level of practice SMU Green Campus Program according to the respondents' ethnicity

Factors	Groups	f	Mean	SD	F-value	p-value
Ethnicity	Ilokano	148	3.01	.4423	4*	0.034
	Tagalog	58	2.96	.4894		
	Ifugao	30	3.08	.4018		
	Igorot	5	3.00	.6360		
	Others	9	2.54	.4326		

**Significant (p<0.05)*

Table 10 illustrates a significant difference in the practice of the SMU Green Campus Program based on participants' ethnicity. The one-way ANOVA analysis showed that the significance value of 0.034 is below the accepted threshold (p<0.05),

signifying a statistically significant difference in program engagement among different ethnic groups. Therefore, the null hypothesis must be rejected, suggesting that ethnicity does influence the level of participation in the SMU Green Campus Program. According to the outcomes derived from the post-hoc analysis, a statistically significant difference in the level of practice of the program is evident among distinct ethnic groups. Specifically, a notable variance is observed between other ethnicities, including Gaddang, Aeta, and Bicolano, collectively registering a mean value of $\boldsymbol{\mu}$ = 2.54, and the Ilokano subgroup, which demonstrates a higher level of practice with a mean value of $\boldsymbol{\mu}$ = 3.01. Furthermore, an analogous significant difference is observed between other ethnicities ($\boldsymbol{\mu}$ = 2.54) and Ifugao respondents ($\boldsymbol{\mu}$ = 3.08), where the latter group exhibits a heightened level of practice on the SMU Green Campus program. This suggests that Ilokano and Ifugao individuals, within the sampled population, manifest a more pronounced commitment to the program compared to their counterparts belonging to other ethnicities.

According to Global Environment Facility (2019), ethnicity can be a determining factor in environmental approaches, as different ethnic groups possess distinct cultural beliefs and values that influence their attitudes and behaviors toward the environment. In the Philippines, the preservation of unique biodiversity relies on the knowledge, innovations, and practices of indigenous and local communities that have direct contact with nature.

Table 11.

Differences in the level of practice of SMU Green Campus Program according to the respondents' religious sector

Factors	Groups	f	Mean	SD	F-value	p-value
Religious Sector	Roman Catholic	165	3.00	.4406	4*	0.569
	Igelsia ni Cristo	14	3.02	.5094		
	Born Again	31	2.91	.4880		
	Methodist	17	2.88	.5226		
	Others	23	3.08	.4786		

**Not significant (p>0.05)*

Displayed in table 11 is the contrast in the level of practice within the SMU Green Campus Program categorized by religious sector. Employing one-way ANOVA analysis, the determined significance value of 0.569 surpasses the accepted value of p (<0.05), leading to the acceptance of the null hypothesis. This indicates the absence of a statistically significant difference in the program's practice across various religious sectors. In essence, the religious affiliations of the students do not exert any statistically discernible impact on the level of program practice.

This finding underscores a noteworthy aspect of the program's universality and its ability to transcend religious affiliations within the student demographic. The lack of a discernible impact from religious affiliations implies that the environmental initiatives encapsulated within the Green Campus Program are embraced uniformly across diverse religious groups. Consequently, the program's objectives and

guidelines appear to resonate consistently irrespective of the varied religious backgrounds of the student body.

As institutions increasingly grapple with fostering inclusive and sustainable practices, this particular observation offers a positive perspective on the program's perceived effectiveness. It suggests that the SMU Green Campus Program has succeeded in establishing a shared commitment to sustainable practices that transcends religious diversity. This insight may inform future strategies in furthering sustainable initiatives within educational settings, emphasizing the potential for inclusivity and widespread engagement across diverse student populations.

This outcome aligns with insights from Taylor et al. (2013), who posit that religious teachings often underscore human moral and ethical responsibilities towards the environment. Many religions consider the natural world as a sacred creation and advocate for its protection and preservation. Consequently, individuals influenced by such teachings are more inclined to adopt environmentally friendly practices, embracing values like conservation, sustainable resource use, and responsible stewardship. In the context of this study, the lack of significant variance based on religious sectors suggests a commonality in the adoption of sustainable practices among participants, irrespective of their religious affiliations.

Table 12.

Difference in the level of practice according to the respondents' number of years in SMU starting from Senior High

Factors	Groups	f	Mean	SD	F-value	p-value
Number of years in SMU(starting from SHS)	1-2 years	172	2.94	.4787	2*	0.024
	3-4 years	51	3.14	.3459		
	5 years and above	27	3.02	.4659		

**Significant (p<0.05)*

Table 12 presents a comprehensive overview of the differential engagement levels in the SMU Green Campus Program among respondents based on their duration of enrollment at SMU, commencing from Senior High. Employing one-way ANOVA analysis, it is ascertained that the significance value of 0.024 falls below the conventional threshold of p (<0.05), substantiating the presence of a statistically significant difference. This statistically significant variance in program practices based on the duration of enrollment holds pertinent implications for the institution's sustainability initiatives. The observed differences may suggest evolving attitudes or awareness levels regarding environmental practices over the course of students' tenure at SMU. This could indicate the potential efficacy of the Green Campus Program in influencing sustainable behaviors among the student body over time.

Further elucidation through Post-Hoc analysis reveals a noteworthy dissimilarity in program practice between respondents with 1-2 years of academic tenure (μ = 2.94) and those with 3-4 years of tenure (μ = 3.14). This discrepancy underscores a meaningful variation in the engagement levels across distinct academic

years, indicating that students at different stages of their academic journey at SMU exhibit diverse levels of involvement with the Green Campus Program.

The discerned variance implies a complex interplay between the program's dynamics and the evolving environmental initiatives within the academic milieu. Specifically, it suggests that the influence of other environmental programs within the institution shapes participants' engagement, a phenomenon that evolves as students' progress through their academic trajectories at SMU. Notably, students who extend their enrollment at SMU for 3-4 years demonstrate a heightened level of practice in the SMU Green Campus Program compared to their counterparts with a shorter academic tenure of 1-2 years.

Aligning with the findings, the insights of Blowers et al. (2009) posit that individuals, having already developed habits and routines based on previous programs, may find it more conducive to adapt to new programs by building upon existing behaviors. This adaptive process aids in maintaining a positive momentum in environmental practices. Consequently, the observed connection between academic tenure and program engagement underscores the potential influence of established habits and routines on the sustained commitment to environmentally conscious behaviors throughout one's academic journey at SMU.

Table 13.

Difference in the level of practice of the SMU Green Campus Program according to the respondents' socioeconomic status

Factors	Groups	f	Mean	SD	F-value	p-value
Socioeconomic Status	Class AB	39	2.87	.5116	3*	0.105
	Class C	40	3.01	.4079		
	Class D	36	2.89	.4798		
	Class E	135	3.04	.4455		

**Not significant (p>0.05)*

Illustrated in table 13 is the discrepancy in the level of practice within the SMU Green Campus Program, categorized by respondents' socioeconomic status. Employing one-way ANOVA analysis, the resultant significance value of 0.105 exceeds the normal threshold ($p<0.05$), indicating the absence of a significant difference between respondents' socioeconomic status and their level of practice in the SMU Green Campus Program. This highlights the program's consistent effectiveness across various socioeconomic backgrounds, underscoring its inclusiveness and broad impact.

A report by McAllister (2015) asserts that individuals are more likely to engage in waste management activities, such as recycling, when they observe others in their vicinity participating. The effectiveness of information may hinge on the distinction between information and knowledge. When presented with information devoid of prior knowledge, it may be ineffective in inducing change. However, if communities possess prior knowledge of waste management and are introduced to new information, they may be more receptive to accepting and implementing these changes.

Furthermore, an article by Salonga (2019) posits that having more financial resources does not necessarily imply that the affluent will be the sole possessors of knowledge or information about waste management. Effective waste management is often cost-efficient, leading to the availability of valuable materials for reuse. This not only saves money but can also generate new jobs and business opportunities. Reducing, reusing, and recycling waste is not only environmentally significant but can also be financially rewarding. It is an observable action that transcends monetary considerations, potentially benefiting both individuals and the broader community.

Section 4. Difference in the level of perceived effectiveness of the SMU Green Campus Program if the respondents are grouped according to sex, strand, ethnicity, religious sector, number of years in SMU, and socioeconomic status.

Table 14.

Differences in the level of perceived effectiveness of the SMU Green Campus Program according to the respondents' sex

	Male		**Female**		**t**	**p**
Sex	M	SD	M	SD	-1.455*	0.569
	2.9171	.5560	3.0167	.5265		

**Not significant (p>0.05)*

Presented in table 14 is the disparity in the level of perceived effectiveness of the Green Campus Program categorized by sex. Utilizing an independent sample t-test, the analysis yielded a p-value of 0.569, surpassing the standard threshold of

p>0.05. Consequently, the acceptance of the null hypothesis is warranted, indicating that sex does not exert a notable impact on the students' level of perceived effectiveness in the SMU Green Campus Program. However, examining the means reveals that female students have a higher mean score for the level of perceived effectiveness of the Green Campus Program compared to their male counterparts.

Nevertheless, this outcome stands in contrast to the study conducted by Yong Li et al., which asserted that sex does influence green psychology and behaviors. According to their findings, females in China reported a higher level of environmentalism. Specifically, females displayed greater concern for environmental problems, expressed more support for plastic ban policies, exhibited more positivity towards reducing plastics (reduce), and demonstrated a stronger intention to bring a reusable bag for shopping (reuse and recycle). The observed discrepancy in the current study prompts a reconsideration of the role of gender in influencing perceptions of environmental initiatives, challenging expectations set by existing literature.

Table 15.

Differences in the level of perceived effectiveness of the SMU Green Campus Program according to the respondents' department

Factors	Groups	f	Mean	SD	F-value	p-value
Departments	SHS	50	2.74	.5674		

	SHANS	50	2.87	.5954	4*	0.000
	SEAIT	50	3.19	.5075		
	STEH	50	3.02	.5310		
	SAB	50	3.01	.3993		

**Significant (p<0.05)*

The data presented in table 15 delineates the discernible disparities in the perceived effectiveness of the Green Campus Program across different academic departments as perceived by respondents. Employing one-way ANOVA, the analysis reveals a significance value of 0.000, which falls below the conventional threshold ($p<0.05$), indicating a statistically significant variation in the program's perceived effectiveness among the respective departments. The data elucidated in table 15 delineates observable distinctions in the perceived effectiveness of the Green Campus Program, as reported by respondents, across various academic departments. Through the application of one-way ANOVA analysis, the derived significance value of 0.000, falling below the conventional threshold, signifies a statistically significant variation in the program's perceived effectiveness among the distinct academic departments.

This statistically significant variation in perceived effectiveness across academic departments suggests that the impact and reception of the Green Campus Program are not uniformly experienced across the entire academic spectrum. The implications of such disparities warrant closer examination to discern factors contributing to varying levels of perceived effectiveness within specific departments.

In a broader context, these findings underscore the necessity for targeted interventions and department-specific strategies to enhance the perceived effectiveness of sustainability programs. Recognizing the distinct dynamics within academic departments can inform the tailoring of initiatives to address specific needs, concerns, and expectations. This nuanced approach may optimize the overall effectiveness of sustainability initiatives within the diverse academic landscape of the institution.

Subsequent to the post-hoc analysis, a distinct contrast in perceived effectiveness is observed, particularly between the Senior High School (SHS) department ($\boldsymbol{\mu}$ = 2.74) and both the Software Engineering and Information Technology (SEAIT) department ($\boldsymbol{\mu}$ = 3.19) and the Sustainable Energy and Environmental Technology (STEH) department ($\boldsymbol{\mu}$ = 3.02). This notable finding accentuates the existence of varying levels of perceived effectiveness across different academic departments, suggesting that the impact and efficacy of the SMU Green Campus Program are department-specific. Notably, the SEAIT and STEH departments exhibit a notably higher level of perceived effectiveness in comparison to the SHS department.

The identified variance implies a resonance of the program with the SEAIT and STEH departments, signifying a potential alignment of program objectives and content with the academic priorities and perspectives within these specific departments. This observation underscores the importance of tailoring

environmental programs to accommodate the unique characteristics and priorities of distinct academic disciplines within the institutional framework.

Corroborating this notion, Ettenson (2017) posits that when college campuses actively participate in the green movement, the benefits extend beyond mere energy conservation and cost savings. Such initiatives also serve as an investment in the future by fostering leadership qualities and activism among students, instilling a genuine interest and concern for global issues. The distinct organizational structure and mature planning observed in the SHS department, as described by Silitonga et al. (2020), may influence the perceived effectiveness of the Green Campus Program, reflecting the multifaceted nature of departmental dynamics within the broader environmental initiatives of the institution.

Table 16.

Differences in the level of perceived effectiveness of the SMU Green Campus Program according to the respondents' ethnicity

Factors	Groups	f	Mean	SD	F-value	p-value
Ethnicity	Ilokano	148	2.99	.5374	4*	0.130
	Tagalog	58	2.94	.5662		
	Ifugao	30	3.06	.4581		
	Igorot	5	2.56	.6724		
	Others	9	2.66	.5710		

**Not significant (p>0.05)*

Illustrated in table 16 are the differences in the level of perceived effectiveness of the Green Campus Program categorized by ethnicity. Employing one-way ANOVA, the resulting significance value of 0.130 exceeds the accepted threshold ($p<0.05$), indicating the absence of a significant difference in the program's perceived effectiveness among these ethnicities. Consequently, the acceptance of the null hypothesis is warranted, suggesting that the program's impact remains consistent regardless of one's ethnicity.

Table 16 visually depicts distinctions in the perceived effectiveness of the Green Campus Program, classified by respondents' ethnicity. Utilizing one-way ANOVA, the computed significance value of 0.130 surpasses the established threshold, signaling the absence of a statistically significant difference in the program's perceived effectiveness among the delineated ethnicities. Consequently, the acceptance of the null hypothesis is warranted, implying a consistent impact of the program irrespective of respondents' ethnic backgrounds.

The absence of a statistically significant disparity in perceived effectiveness among diverse ethnic groups has implications for the universality and inclusive nature of the Green Campus Program. This suggests that the program resonates consistently across different ethnicities, reinforcing a shared commitment to its objectives. Such uniformity in perceived effectiveness indicates a potential strength of the program in fostering a collective sense of environmental responsibility that transcends ethnic distinctions.

In terms of strategic implications, this observation supports the notion that the program's messaging and initiatives are effective in reaching and engaging individuals from various ethnic backgrounds. The program's ability to maintain a consistent impact across diverse ethnicities underscores its potential as a unifying force in promoting sustainable practices within the institution. This insight may guide future efforts in crafting inclusive sustainability initiatives that resonate with a diverse student population.

Aligned with these findings, an article from Indiana University (2021) emphasizes the increasing importance of preparing students for success in a diverse, inclusive global workforce. Diversity and inclusion are identified as beneficial for communities, schools, and students from all backgrounds. Research indicates that more diverse organizations make better decisions with improved results. Learning within a diverse environment promotes collaboration, fosters innovation, and encourages creativity. Hence, providing an academic environment rich with diversity is deemed an essential component of the campus experience. This perspective reinforces the idea that the perceived effectiveness of programs, such as the Green Campus initiative, transcends ethnic differences, contributing to a more inclusive and enriching educational experience.

Table 17.

Differences in the level of perceived effectiveness of the SMU Green Campus Program according to the respondents' religious sector

Factors	Groups	f	Mean	SD	F-value	p-value
Religious Sector	Roman Catholic	165	2.98	.5569	4*	0.436
	Igelsia ni Cristo	14	3.08	.6466		
	Born Again	31	2.80	.4662		
	Methodist	17	3.02	.4529		
	Others	23	2.98	.5267		

**Not significant (p>0.05)*

Illustrated in table 17 are the differences in the level of perceived effectiveness of the Green Campus Program categorized by respondents' religious sectors. Employing one-way ANOVA, the resulting significance value of 0.436 surpasses the commonly accepted threshold of $p<0.05$, indicating the absence of a significant difference in the program's perceived effectiveness among these sectors. Consequently, the acceptance of the null hypothesis is warranted, suggesting that the program's impact remains consistent regardless of one's religious sector.

Table 17 illustrates distinctions in the perceived effectiveness of the Green Campus Program, segmented by respondents' religious sectors. Through the application of one-way ANOVA, the derived significance value of 0.436 exceeds the conventional threshold, signifying the absence of a statistically significant difference in the program's perceived effectiveness among the delineated religious sectors.

Consequently, the acceptance of the null hypothesis is warranted, implying a consistent impact of the program irrespective of respondents' religious affiliations.

The absence of a statistically significant disparity in perceived effectiveness across religious sectors suggests that the Green Campus Program resonates consistently among individuals from diverse religious backgrounds. This uniformity in perceived effectiveness underscores the program's potential to transcend religious distinctions and foster a shared commitment to its sustainability objectives.

Strategically, this finding supports the notion that the program's initiatives and messaging effectively reach and engage individuals across various religious sectors. The program's ability to maintain a consistent impact irrespective of religious affiliations highlights its potential as a unifying force in promoting sustainable practices within the institution. This observation may inform future endeavors aimed at developing inclusive sustainability initiatives that resonate with a diverse student population encompassing various religious affiliations.

In line with these findings, it is noted that religious communities have demonstrated significant behavior change in situations where non-faith-based communication has faltered (Palmer and Fairy, 2003). The findings suggest that values and beliefs such as stewardship and the Golden Rule, influenced by religious concepts, can provide guidance for sustainability. However, the effective utilization of these concepts remains inadequate, resulting in a gap in understanding the overall

concept of sustainability for both religious leaders and individuals. This limitation constrains the formulation of strategies for progressing in sustainability initiatives. Despite these challenges, the observed consistency in the perceived effectiveness of the Green Campus Program across various religious sectors underscores its potential to transcend religious differences and contribute to sustainable practices.

Table 18.

Differences in the level of perceived effectiveness of the SMU Green Campus Program according to the respondents' years in SMU starting from Senior High

Factors	Groups	f	Mean	SD	F-value	p-value
Number of years in SMU(starting from SHS)	1-2 years	172	2.93	.5818	2*	0.117
	3-4 years	51	3.11	.4109		
	5 years and above	27	2.94	.4698		

**Not significant (p>0.05)*

Outlined in table 18 are the differences in the level of perceived effectiveness of the Green Campus Program categorized by respondents' years in SMU, starting from Senior High. The statistical analysis utilizing one-way ANOVA indicates that the significance value of 0.117 exceeds the commonly accepted threshold ($p<0.05$). This suggests the absence of a significant difference in the program's perceived effectiveness among students in different years at SMU. Consequently, this leads to

the acceptance of the null hypothesis, indicating that the program's impact remains consistent regardless of the student's years of stay at SMU, starting from Senior High.

The lack of a statistically significant disparity in perceived effectiveness across different academic years implies that the Green Campus Program's influence endures consistently throughout students' tenure at SMU. This finding underscores the program's capacity to maintain a uniform impact, irrespective of the varying durations of students' engagement with the institution.

Strategically, this observation supports the program's resilience in sustaining its perceived effectiveness over time, suggesting that it continues to resonate with students throughout their academic journey. This insight may guide future efforts in refining and reinforcing sustainability initiatives, ensuring their enduring impact and relevance for students at different stages of their educational experience.

Supporting this perspective, Bocken et al. (2014) assert that individuals who have previously participated in a program may have acquired knowledge, skills, and awareness about environmental practices. This prior learning can be effectively transferred to a new program, providing participants with a head start and potentially deepening their understanding of environmental issues. It can also enhance their ability to implement new practices effectively. In the context of this study, the perceived effectiveness of the Green Campus Program appears to

transcend the variations in the duration of students' stay at SMU, emphasizing the program's consistent impact across different cohorts of participants.

Table 19.

Differences in the level of perceived effectiveness of the SMU Green Campus Program according to the respondents'' socioeconomic status

Factors	Groups	f	Mean	SD	F-value	p-value
Socioeconomic Status	Class AB	39	2.82	.5838	3*	0.152
	Class C	40	2.99	.5546		
	Class D	36	3.11	.4867		
	Class E	135	2.96	.5362		

**Not significant (p>0.05)*

Presented in table 19 is the distinction in the level of perceived effectiveness of the SMU Green Campus Program, categorized by respondents' socioeconomic status. The findings from the one-way ANOVA reveal that the significance value of 0.152 surpasses the accepted value of $p<0.05$, leading to the acceptance of the null

hypothesis. This suggests that there is no significant difference between the socioeconomic status of the respondents and the perceived effectiveness of the SMU Green Campus Program.

The lack of a statistically significant disparity in perceived effectiveness based on socioeconomic status implies that the impact of the Green Campus Program is consistent across diverse socioeconomic backgrounds. This finding underscores the program's potential in fostering a universally embraced commitment to sustainability, irrespective of socioeconomic distinctions among the student population.

Strategically, this observation supports the program's inclusivity, suggesting that it effectively engages students across various socioeconomic strata. Understanding that socioeconomic status does not significantly influence perceived effectiveness can inform future initiatives to maintain accessibility and relevance, ensuring that sustainability efforts are equitable and resonate with a broad spectrum of students regardless of their economic backgrounds.

Relevant to this context, Lakioti (2017) uncovered that, irrespective of their socioeconomic status, social influence and worldview play an equal role in self-reported and observed recycling behavior, grounded in self-determination. Moreover, the effectiveness of awareness-raising and education campaigns, rooted in community-based involvement, emerges as crucial for fostering active participation

in domestic recycling initiatives (Kotzé, 2015). This underscores the importance of imparting knowledge through varied channels, acknowledging the diverse influences and observations that shape individuals' perspectives on proper waste management. Despite socioeconomic variations, the perceived effectiveness of the Green Campus Program appears consistent, emphasizing its potential to transcend economic differences and foster sustainable practices.

Section 5. Correlations of the Level of Practice and Perceived Effectiveness of SMU Green Campus Program

Table 20.

The significant relationship between the level of practice and the level of perceived effectiveness of the SMU Green Campus Program

	Pearson's r	**p-value**	**Qualitative Description**
Level of Perceived Effectiveness ⟷ **Level of Practice**	0.551*	0.000	Moderate Positive Correlation

Legend: r =1.0: Perfect positive correlation, 0.8 < r < 1.0: Strong positive correlation, 0.6 < r ≤ 0.8: Moderate positive correlation, 0.4 < r ≤ 0.6: Weak positive correlation, 0: No correlation, -0.4 ≤ r < 0: Weak negative correlation, -0.6 ≤ r ≤ -0.4: Moderate negative correlation, -0.8 ≤ r < -0.6: Strong negative correlation, r = -1.0: Perfect negative correlation

Displayed in table 20 is the correlation between the level of practice and the perceived effectiveness of the SMU Green Campus Program. The Pearson r Correlation reveals a moderate positive correlation between the level of practice and

program's perceived effectiveness. With a significance value of 0.000, falling below the accepted threshold ($p<0.05$), the rejection of the null hypothesis is warranted. This signifies that students' active involvement in sustainable practices within the program is positively associated with its overall effectiveness. Put simply, the more students engage in sustainable practices, the more effective the program becomes in achieving its goals.

In accordance with the principles outlined by the National Academies of Sciences, Engineering, and Medicine (1998), several elements of "best practice" or "effective practice" in research support and performance are universally applicable. It is emphasized that articulating research objectives clearly and aligning them with organizational goals is critical. This principle is deemed universal, extending across corporate and academic institutions as well as national governments. Analogously, the observed positive correlation in the current study underscores the importance of active student participation in achieving the goals of the Green Campus Program, reinforcing its effectiveness through sustainable practices.

Section 6. Thematic Analysis

Table 21.

Suggestions of the respondents in improving the implementation of the SMU Green Campus Program

Themes	Sample Statements	Frequency	Percentage (%)
Increase the Availability of Trash Bins	• I recommend that we have enough trash bins and proper segregation, strictly prohibiting no plastic from entering school also more programs and activities in line with this topic. • Add more trash bins within the school vicinity. Give punishment to those who are keep loitering in the wrong area. • Focus on putting a lot of trash bin or garbage bin everywhere. And also it is more advisable to recycle plastic bottles to be used in making trash bins to lessen plastics.	43	17.2
Stricter Implementation and Enforcement	• To improve the implementation of the SMU Green Campus Program there is only one thing to do and that is all students must follow the rule which is maintaining the campus clean. we must do it by reminding ourselves that cleanliness is next to godliness. If we have our own kalat and no trash can is available put in our bags than throw it somewhere else. • For me, I need to become the SMU School Strict in waste management so that student will clean their room after they use the room because its dirty because of the trash of the students.	38	15.2

	• Furthermore strict implementation of bringing more plastic waste materials as much as possible.		
Reduce or Eliminate Plastics	• There are less plastic bottles, single-use plastic. Also, you can see how clean it is inside the campus or in classrooms. • No plastics of food in order to maintain the green campus. • No plastic bottles was seen around the campus.	28	11.2
Promote the Use of Reusable Items	• Use of tumbler instead of plastic bottles, use of wooden utensils, and the entry of plastic was limited. • I suggest to encourage everyone to bring own utensils when buying food to avoid scattered garbages or waste. • Usage of reusable containers are observed in almost all of the students.	22	8.8
Educational Programs and Awareness	• Inform properly the SMU Green Campus Program because other don't know about the program or other just heard it through gossip or a classmate inform them. • Flyers must be plastered in the billboard or in the gates and inside the classroom. • Increase awareness and participation, enhance recycling infrastructure, energy conservation measures, promote sustainable food practices and monitoring and reporting.	19	7.6

Segregation and Recycling	• Minimize or lessen the garbage, strictly observe and focus to the major garbage of our school. • Use recyclable materials. • Proper waste disposal, discipline of the students, avoid using plastics.	15	6
Collaboration and Responsibility	• Not only faculty and staff doing this implementation instead we need to make sure of ourselves as a student of SMU that we are following this rule. To make our school more presentable, clean and safe. • Be responsible students because we have our own responsibilities to protect our SMU Green Campus. • I suggest is sana kung gusto nila ma improve ang SMU Green Campus program cooperate the student and teachers for maintaining the non-cleanliness grounds.	14	5.6
Clean as You Go (CLAYGO)	• My suggestions to improve the implementation of the SMU Green Campus Program by implementing the "CLAYGO" (Clean as you go) this can truly benefit not only in our school but to inspire Marians to lead and to courage everyone that a Green is a healthy one to live. • Provide more garbage bins to maintain the cleanliness of school and always do the CLAYGO. • Since some of the classrooms are left dirty after each day, I	11	4.4

	suggest making a policy to clean as they go.		
Tree Planting	• Plants flowers around all trees at the campus. • Tree planting at the end of semester. • Plant more trees.	10	4
Vendor Compliance	• If they prohibit or restrict bottled waters inside the campus, they should also restrict canteens selling junk foods or any food with plastic packaging. • Restrict foods that are in single-use-plastics in the canteen. Allow students to bring their homemade snacks to eat in designated places. • Less use of plastics, canteen using biodegradable products such as wooden spoon, paper cups and paper bowl.	8	3.2
Communication and Guidelines	• observe the RA 9003, and use reusable materials like tumblers, and containers. • Always implement CHSF. • More clean up drive and monitor CHSF efficiently.	7	2.8
Monitoring and Inspection	• Every floor should at least each trash bins. School guards should check every students bags in terms of plastic bottles. • Check the water fountains to avoid buying of plastic bottles outside. • Check bags whenever entering the school since some brings plastics inside their bags.	6	2.4

None	• No suggestion given they're good enough. • Nothing. It is still the same. • None	29	11.6
TOTAL		**250**	**100%**

Illustrated in table 21 is the compilation of improvements in the campus observed by respondents after the implementation of the SMU Green Campus Program. Employing thematic analysis, the data gleaned from students' suggestions for enhancing program implementation reveals a diverse array of perspectives and priorities. The predominant theme, articulated by approximately 17.2% of students, underscores the imperative to augment the availability of trash bins across the campus. This emphasizes the pivotal role of convenient waste disposal in upholding a clean and environmentally friendly campus. The enforcement of program guidelines, highlighted by nearly a quarter of respondents, emerges as a crucial factor for program success. Approximately 15.2% of students express concerns about plastic usage, advocating for its reduction or elimination. Furthermore, a smaller yet significant proportion of respondents (8.8% and 7.6%, respectively) accentuate the significance of promoting reusable items and conducting educational programs to inform and engage students in sustainability efforts. This diverse range of suggestions delineates a student body committed to fostering a greener, more sustainable campus, thereby presenting opportunities for program administrators to tailor strategies to meet these distinct goals and expectations.

The emphasis on increasing the availability of trash bins, echoed by a significant portion of respondents, underscores the critical role these containers play in maintaining cleanliness, public health, and environmental quality in public spaces. It promotes responsible behavior, supports recycling efforts, and carries broader economic and social benefits for communities. Aligning with the insights from green-city. co (2017), waste containers are recognized as essential elements that securely store waste, reduce the spread of diseases and stench, efficiently recycle waste, and contribute to cost savings.

Table 22.

Improvements in the campus that the respondents observed after the program was implemented

Themes	Sample Statements	Frequency	Percentage (%)
Reduction in Plastics	• There were fewer scattered plastic bottles in the campus which made the university more eco-friendly. • Less single-use plastics were observed being scattered around the campus. The installation of water fountains was also a major change towards green and clean community within the school premise. • I've definitely observed that there has been fewer plastic wastes like plastic bottles. I've	54	22.0%

	also observed that there have been more students bringing their own tumblers.		
Cleanliness and Organization	• I observed the maintenance of cleanliness of the surroundings but sometimes I saw waste scattered but not all the time. SMU is eco-friendly. • The benches are clean and the campus become more peaceful and friendly. • A more cleaner and greener environment.	46	18.8%
Use of Eco-Friendly Alternatives	• Some places got cleaned and easy to clean in terms of plastic utensils, straws, and cup.. • The entry of disposable utensils was not allowed, canteen used wooden spork, garbage are segregated. • Use of tumbler instead of plastic bottles, use of wooden utensils, and the entry of plastic was limited.	28	11.4%
Compliance and Strictness	• Guards started to be more strict on the entry of plastics. • They are not allowing students to bring plastic bottles inside the school. • The guards became more strict.	19	7.8%
Responsibility and Awareness	• Teachers are always reminding the students about the program. • The improvement in the campus did I observe after the program was implemented by to be observable and maintain the neat and clean of the school campus or the school environment. • Students are responsible.	25	10.2%

Overall Positive Impact	• It is getting more enjoyable. • It became a lot more pleasing to see. • The campus was green campus environment.	30	12.2%
No Plastic Bottles	• No plastic bottles are scattered anymore. • There are no plastic bottles that are seen littered inside the campus. • They not use plastic or others that made in plastic.	14	5.7%
Water Refilling Stations	• The water fountain is helpful for us as a student so that we can't buy water bottles in the canteen. • There is an accessible water fountain inside the campus. • Campus water refilling station.	8	3.3%
Collaboration and Engagement	• Collaboration and engagement, enhanced waste management and increased environment awareness. • Fewer students use plastics. • Mostly students are doing CHSF.	7	2.9%
Improved Waste Management	• Improvements are that less trashes or plastic waste are seen on the campus. • I once was called out by the guards about bringing in a milk tea cup and observed that everyone else too... and I can see the campus improved when it doesn't allow plastic cups inside. • Fewer appearances of plastics.	4	1.6%
Sustainability and Eco-Friendliness	• I observed the maintenance of cleanliness of the surroundings but sometimes I saw waste	5	2.0%

	scattered but not all the time. SMU is eco-friendly. • They do not allow plastic inside. most students has their own water container. • No more plastic utensils and plastic bottles.		
Other/No Comment	• I can't give answer. • None • No comment	10	4.1%
TOTAL		**250**	**100%**

Presented in table 22 is a compilation of suggestions provided by respondents for improving the implementation of the SMU Green Campus Program. Utilizing thematic analysis, the data extracted from student responses unveils a promising outlook for the campus environment. The most prevalent theme, constituting 22.0% of responses, revolves around the reduction in plastics, indicating a noteworthy decrease in the use of plastic materials. This is closely followed by the theme of cleanliness and organization (18.8%), signifying that many students have observed a cleaner and more organized campus, attributed to enhanced waste management. The adoption of eco-friendly alternatives (11.4%), such as wooden utensils and reusable containers, signifies a positive shift toward sustainability. Many students have also expressed a positive impact (12.2%) on the campus environment, reflecting the program's well-received contribution to a more pleasant atmosphere. Additionally, heightened responsibility and awareness (10.2%) among students and faculty are evident, pointing to a growing environmental consciousness. The absence of plastic

bottles (5.7%) is noteworthy, indicating a reduction in single-use plastics and a more eco-friendly campus. Overall, the data suggests that the SMU Green Campus Program has made significant strides toward a cleaner, more sustainable, and eco-friendly campus, with ongoing efforts and room for further progress.

The prominence of the reduction in plastics as the most observed response by students reflects the widespread visibility of plastics in daily life due to their versatility, cost-effectiveness, and durability. While initially considered a valuable resource with significant material and energy savings, plastics have become conspicuous in the environmental landscape due to their persistence and accumulation. Andrady and Neal (2009) highlight the ubiquity of plastics in modern society, acknowledging their importance but also noting their increased visibility and environmental impact. Media coverage has further amplified the visibility of the plastic issue, making it more noticeable than many other environmental elements.

CHAPTER IV

CONCLUSION AND RECOMMENDATION

Conclusion

In conclusion, this study provides a comprehensive analysis of the SMU Green Campus Program's Level of Practice and Perceived Effectiveness, providing invaluable insights for Green Campus implementation enhancement. The thorough examination and data analysis highlight the critical need for a more robust integration of the SMU Green Campus program through meticulous implementation, interdisciplinary collaboration, and unwavering commitment to Green Campus initiatives. The investigation of respondents' demographic characteristics, such as sex, religious sector, and socioeconomic status, reveals a conspicuous lack of discernible influence on the program's level of practice and perceived effectiveness.

The following are the key conclusions drawn from an in-depth study evaluating the SMU Green Campus Program's level of practice and perceived effectiveness:

1. The study presents a thorough analysis of the SMU Green Campus Program's Level of Practice and Perceived Effectiveness, contributing to a comprehensive understanding of its implementation.

2. The research offers invaluable insights for the improvement of the Green Campus Program, emphasizing the critical need for meticulous implementation, interdisciplinary collaboration, and an unwavering commitment to Green Campus initiatives.

3. Demographic characteristics such as sex, religious sector, and socioeconomic status show no discernible influence on the program's level of practice and perceived effectiveness.

4. Notable variation in the level of practice is observed concerning respondents' ethnicity and tenure at SMU, yet these disparities do not significantly impact the program's overall effectiveness.

5. Significant disparities in practice and perceived effectiveness emerge across diverse academic departments, highlighting the need for tailored approaches within different departments.

6. The study identifies a significant and positive relationship between students' active participation in sustainable practices and the overall perceived effectiveness of the SMU Green Campus Program.

7. Respondents report a significant reduction in plastic consumption, indicating positive changes in the campus environment. Suggestions for program enhancement include increased waste bin availability, emphasizing the importance of convenient waste disposal for maintaining a clean and eco-friendly campus.

This study emphasizes the program's positive impact on respondents' awareness and behavior, validating its critical role in advancing environmental sustainability, empowering youth, and promoting community well-being. Despite current challenges, the SMU Green Campus program remains a valuable tool for achieving these goals. It is critical to emphasize that our research findings confirm that respondents practice the SMU Green Campus program to a moderate extent, and that the program has an established level of effectiveness.

Recommendations

As the culmination of our rigorous study on the SMU Green Campus Program, we present a set of carefully considered recommendations aimed at fortifying the program's impact and sustainability.

Recommendations for Future Research

Conduct an in-depth demographic analysis to explore nuanced factors influencing program practice and perceived effectiveness, alongside implementing a longitudinal study to track changes in the SMU Green Campus Program's level of practice and perceived effectiveness over an extended period.

Recommendations for Students

Encourage active student involvement in the program, fostering sustainable practices and cultivating a culture of environmental responsibility, while simultaneously advocating for heightened awareness and education on sustainable practices within the student community.

Recommendations for Administration and Institution

Implement a system for continuous program evaluation, garnering regular feedback from participants and stakeholders to pinpoint areas for improvement; fortify administrative support for the SMU Green Campus program through policy reinforcement and resource allocation; and explore the integration of sustainability principles into broader institutional policies and strategic planning.

Recommendations for the Program

Ensure the program's flexibility and adaptability to cater to diverse student needs, promoting widespread engagement; explore innovative approaches to program elements by considering emerging trends and technologies in sustainability for continuous enhancement; regularly assess and update program guidelines to align with emerging sustainability best practices; and implement targeted initiatives to address specific challenges identified in the study, such as the use of reusable containers.

These recommendations span diverse aspects, addressing the needs of future researchers, students, administration, teachers, the institution, and the program itself. Rooted in the findings of our investigation, these recommendations offer actionable strategies to elevate the program's efficacy and contribute to the cultivation of a more environmentally conscious and responsible campus community.

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APPENDICES

A. Questionnaire

September 14, 2023

To whom it may concern,

Marian Greetings!

We the researchers, are conducting a study entitled, *"The Level of Practice and Effectiveness of the SMU Green Campus Program: A Basis for the Improvement of Green Campus Implementation."* Part of the requirements of our study is to float the questionnaire and gather the needed data to complete the study.

Concerning this, may we request your assistance in gathering the needed data for our research. This would be a great help in the success of completing our study. Rest assured that all the information that will be gathered from you will be treated with utmost confidentiality and will be used for research purposes only.

We look forward for your positive response. Your time and effort are highly appreciated. Thank you and God bless!

Respectfully yours,

Hans Jeremy A. Valdez Aisha Marie D. Alvendia Jodie Angela E. Manglallan

Mikaela Athena I. Lodevico Trina Leigh R. Manayan
Researchers

MR. MARK BERNARD C. SAN JUAN
Research Adviser

Noted by:

MRS. LADY VALEN CHARON A. DELA PEÑA
Research Teacher/Research Coordinator

I. Demographic Profile: Please fill out the necessary information required below.

Name (Optional): _____ Sex: [ ] Male [ ] Female

Department: [ ] SHS [ ] SHANS [ ] SEAIT [ ] STEH [ ] SAB

Ethnicity: [ ] Ilocano [ ] Tagalog [ ] Ifugao [ ] Igorot Others: _____

Religious sector: [ ] Roman Catholic [ ] Iglesia ni Cristo [ ] Born Again [ ] Methodist

Others: _____

Number of years in SMU (starting from Senior High): [ ] 1-2 years [ ] 3-4 years [ ] 5 and above

Socio-economic status: Please check your specific ANNUAL Family income.

[ ] Class AB: Php 3,000,000 – above [ ] Class C: Php 1,000,000 - Php 2,999,999

[ ] Class D: Php 500,000 - Php 999,999 [ ] Class E: Php 500,000 – below

II. Level of Practice. The following statements are practices that abide by the SMU Green Campus Program. Place a check on the box that corresponds to your level of practice.

1 – Never **2** – Sometimes **3** – Very Often **4 –** Always

STATEMENTS	1	2	3	4
1) I use reusable containers for food and drinks.				
2) I use reusable utensils for food and drinks.				
3) I bring my own reusable containers when buying food at the canteen.				
4) I bring my own water tumbler or reusable water containers.				
5) I don't bring disposable plastics such as spoons, forks, cups, straws, containers, and Styrofoam food packs inside the campus.				
6) I don't bring food and drinks that are in single-use plastic containers inside the campus.				
7) I strictly follow the guidelines of the SMU Green Campus program.				

8) I see authorities follow the protocols and guidelines of the SMU Green Campus Program.				
9) I see the teachers/faculty and students following the guidelines of SMU Green Campus.				
10) The University disallows the entry and use of disposable plastics such as spoons, forks, cups, straws, containers, and Styrofoam food packs.				
11) The University disallows the entry and selling of food and drinks in single-use plastic (PET) containers				
12) I notice that concessionaires and caterers on campus use only reusable utensils or biodegradable utensils.				
13) I encourage others (peers, colleagues, etc.) to use reusable containers and reduce single-use plastics on campus.				
14) The entry and selling of food and drinks in single-use plastic (PET) containers prohibited on campus.				
15) I refill my water container from the drinking fountains rather than buying bottled water.				

III. Level of Perceived Effectiveness. The following statements reflect the effectiveness of the SMU Green Campus Project. Place a check on the box that corresponds to your evaluation on the level of effectiveness.

1- Hardly Observed **2 -** Sometimes Observed **3 -** Adequately Observed **4 –** Strictly Observed

STATEMENTS	1	2	3	4
1) Fewer plastic utensils are seen inside the campus.				
2) Less disposable containers are seen inside the campus.				
3) More students, faculty, staff, and LDR staff are seen using reusable containers.				
4) The concessionaires and caterers stopped selling food and drinks in single-use plastics.				
5) No plastic waste is scattered inside the campus.				

6) Less plastic bottles and styrofoam containers are seen inside the campus.				
7) Cleanliness of the school grounds, classrooms, and offices is maintained all the time.				
8) The program consistently restricts the use of single-use plastics as part of the Clean, Healthy, Safe, and Friendly program.				
9) Waste materials are managed efficiently in all areas of the school campus.				
10) More students, faculty, and staff are seen using eco-friendly or reusable bags on campus.				
11) The program effectively monitors and enforces restrictions on single-use plastics on campus.				

IV. Open-ended Questions: Please answer the questions provided below.

1. What suggestions can you give to improve the implementation of the SMU Green Campus Program?

   _____
   _____
   _____
   _____
   _____
   _____

2. What improvements in the campus did you observe after the program was implemented?

   _____
   _____
   _____
   _____
   _____
   _____

B. CURRICULUM VITAE

CURRICULUM VITAE

Name: Valdez, Hans Jeremy A.



Address: Ozanam Village, Banganan Aritao, Nueva Vizcaya

Email Address: hansjeremyvaldez@gmail.com

Contact Number: 09618708266

PERSONAL INFORMATION

Age: 18 years old

Date of Birth: July 08, 2005

Civil Status: Single

Place of Birth: Bayombong, Nueva Vizcaya

Religion: Roman Catholic

Father's Name: Jimmy E. Valdez

Mother's Name: Mary Jane A. Valdez

EDUCATIONAL BACKGROUND

	Name of School	Awards
Senior High School	Saint Mary's University	With Honors
	Senior High School	
Junior High School	Saint Mary's University	With Highest Honors

	High School and Science High School	
Grade School	Saint Teresita's Academy	With Honors

CURRICULUM VITAE

Name: Manglallan, Jodie Angela E.



Address: Bayombong, Nueva Vizcaya

Email Address: jodieangelamanglallan@gmail.com

Contact Number: 09369055627

PERSONAL INFORMATION

Age: 17 years old	Date of Birth: March 10, 2006
Civil Status: Single	Place of Birth: Bayombong, Nueva Vizcaya
Religion: Roman Catholic	Father's Name: Freddie G. Manglallan
	Mother's Name: Josephine E. Manglallan

EDUCATIONAL BACKGROUND

	Name of School	Awards
Senior High School	Saint Mary's University	With Honors
	Senior High School	
Junior High School	Saint Mary's University	With High Honors

	High School and Science High School	
Grade School	Saint Mary's University	With Honors

CURRICULUM VITAE

Name: Alvendia, Aisha Marie D.



Address: Villaverde, Nueva Vizcaya

Email Address: alvendiaisha@gmail.com

Contact Number: 09761810177

PERSONAL INFORMATION

Age: 17 years old	Date of Birth: March 10, 2006
Civil Status: Single	Place of Birth: Villaverde, Nueva Vizcaya
Religion: Roman Catholic	Father's Name: Valentino C. Alvendia
	Mother's Name: Gina D. Alvendia

EDUCATIONAL BACKGROUND

	Name of School	Awards
Senior High School	Saint Mary's University	
	Senior High School	
Junior High School	Our Lady of Fatima	With Honors

	School of Villaverde	
Grade School	Bintawan North	With Honors
	Elementary School	

CURRICULUM VITAE

Name: Mikaela Athena Lodevico.



Address: Bayombong Nueva Vizcaya.

Email Address: lodevicoathena@gmail.com

Contact Number: 09682454466

PERSONAL INFORMATION

Age: 17 years old — Date of Birth: March 22,2006

Civil Status: Single — Place of Birth: Bayombong, Nueva Vuzcaya

Religion: Christian Born-again — Father's Name: Roderick S. Lodevico

Mother's Name: Concepcion E. Inocencio

EDUCATIONAL BACKGROUND

	Name of School	Awards
Senior High School	Saint Mary's University	With Academic Distinction
	Senior High School	
Junior High School	Saint Mary's University	With Honors

	High School and Science High School	
Grade School	San Francisco De Sales School	With Honors

CURRICULUM VITAE

Name: Trina Leigh R. Manayan



Address: Macate Baambang, Nueva Vizcaya

Email Address: leighmanayan.20@gmail.com

Contact Number: 09384882072

PERSONAL INFORMATION

Age: 18 years old	Date of Birth: September 20, 2005
Civil Status: Single	Place of Birth: Bayombong, Nueva Vizcaya
Religion: Roman Catholic	Father's Name: Redentor S. Manayan
	Mother's Name: Ma. Concepcion R. Manayan

EDUCATIONAL BACKGROUND

	Name of School	Awards
Senior High School	Saint Mary's University	
	Senior High School	
Junior High School	Saint Mary's University	With Honors

Junior High School

Grade School	Bambang Central School	With Honors

Sped Center