

**SUSTAINABILITY OF THE GULAYAN SA PAARALAN PROGRAM (SCHOOL GARDEN) IMPLEMENTATION IN THE NEW NORMAL: BASIS FOR CAPACITY ENHANCEMENT PROGRAM**

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**ABSTRACT**

*The study's primary goal is to determine the sustainability of the Gulayan sa Paaralan Program (School Garden) Implementation in the new normal. This includes the extent of practices, problems encountered, and sustainability mechanisms done by the persons involved. The study pursued further to look into the relationship between the extent of practices and the sustainability mechanisms. The findings were utilized to develop an enhancement program. A descriptive research design was employed in the present study. After a thorough inspection, the results were obtained. It was found out that the GPP is still operating in the schools of Butuan City Division which provides a source of organic vegetables to the pupils and the community. However, instead of the pupils, the teachers, parents, and other stakeholders assume responsibility for sustaining the new normal program. The extent of practices except the monitoring and evaluation has a significant relationship with sustainability mechanisms. As the extent of practices tends to go up, the sustainability mechanisms in implementing the GPP will also go up. It was concluded that in this time of the pandemic, efforts to maintain the GPP as an additional food basket for everyone are seen to be sustaining.*

**Keywords:** Food Basket, GPP, Gulayan sa Paaralan Program, New Normal, Sustainability Mechanisms

**INTRODUCTION**

Malnutrition and food insecurity are two of the most predominant problems in the whole world today. The presence of the COVID-19 pandemic contributes to the overall prospects for food insecurity and malnutrition. Several countries which were not affected by food insecurity for the past years may appear in the list of the affected ones at present. An assessment suggests that the pandemic may add between 83 and 132 million people to the total number of undernourished in the world in 2020, depending on each country's economic growth scenario. The following year's expected recovery would decrease the number of

undernourished, but still above what was projected in the United Nation's 2030 Agenda for Sustainable Development (World Health Organization, 2020).

The recent UNICEF report concluded that 21.3 percent or more than one out of five children aged five and below had stunted growth worldwide. Moreover, most of the world's undernourished are still found in Asia (381 million) and Africa (250 million). The number also suggests that the rate of undernourished children is increasing. It is also reported that the number of people affected by severe food insecurity rises to a record high. In 2019, close to 750 million (nearly one in ten people worldwide) were exposed to critical levels of food insecurity (World Health Organization, 2020).

The malnutrition problem in the Philippines is far more severe. There is an estimated death toll of 95 children every day because of malnutrition in the country. Besides, it is found out that one in three Filipino children under five years old are stunted or considered as too short for their age, and roughly 7 percent of children are considered too thin for their height. Moreover, a 10th of Filipino adolescents are now overweight (Lina, 2020).

To help address malnutrition and hunger among its students, the Department of Education (DepEd) initiated the Gulayan sa Paaralan Program (GPP). It aims to promote foods rich in protein, carbohydrates, vitamin A and iron as primary inputs and sources of school-based feeding. This project was started under DepEd Order No. 293, s. of 2007. In support of the government's hunger mitigation efforts, school gardens at elementary and secondary levels ensure a continuous supply of vegetables for the students' consumption. Based on the policies and memoranda regarding the implementation of GPP in DepEd run schools, vegetable school gardens can be linked with the interaction among human security, social protection, social safety nets, and food and nutritional security (Renato, 2018).

The GPP around the country serves its purpose and produces a significant percentage of vegetables harvested with the help of the schools' stakeholders for the consumption of the students as well as the source of income for small schools as they sell their extra produce to the community way back in the old normal (Oro, 2018). But as the country experienced the wrath of the Covid-19 pandemic in the first quarter of 2020, all institutions, including schools nationwide, are in complete lockdown. This situation halted the program's implementation, which is supposed to be a great help at these trying times, especially in providing fresh and healthy food sources among the students and the community where the school is located.

In particular, the schools in Butuan City Division are always looking for ways to innovate practices, strategies, and mechanisms in improving and sustaining the implementation of GPP amidst the pandemic as stipulated in Division Memo No. 19, s. 2021. It is reiterated in the said memorandum that a series of coordination meetings will be conducted to share the best practices in the implementation of GPP among schools and to plan for sustainable activities of the program. Hence, schools must strengthen their partnerships with stakeholders to make this possible. However, challenges such as strict health protocols, restrictions, and lockdowns hinder some planned activities and the natural cycle in cultivating the school's vegetable gardens. For this reason, schools are having difficulty sustaining the implementation of the GPP using the

strategies, practices, and mechanisms used in the old normal. This scenario encourages the proponent to look at possible sustainability mechanisms that could help implement the GPP in the new normal as successful or even better as that in the old normal.

The facts stated above urged the proponents to look further into the extent of practices and sustainability mechanisms that will help sustain this program to mitigate and possibly decrease malnourished school children's rate, especially now that they are in the most vulnerable state. Furthermore, this study aims to determine the sustainability of the GPP implementation in the new normal and to look into the GPP program itself, the possible problems encountered on its implementation, and the promising prospects the present situation may create for the program.

## **METHODOLOGY**

### ***Research Design***

This study employed the descriptive correlational research design. On the one hand, the research method is descriptive as it involves collecting data in determining the existing conditions. It also described the current situation of the implementation of GPP in the central schools of Butuan City Division, taking into consideration the extent of practices, the sustainability mechanisms, and the problems encountered by the different schools of the said districts mentioned above. On the other hand, it is correlational as it determines the extent to which different relevant variables were related to each other. The articulated design was employed in finding the correlation between the extent of practices in implementation in terms of lead cultivators, schedule of cultivation, health protocols and guidelines, distribution of harvest, participation of students in Gulayan sa Tahanan – a GPP extension program, and monitoring and evaluation, and the mechanisms in sustaining the implementation of the GPP in the new normal with the components: partnerships, crop museum, and seed banking, and funding source. In general, the research utilizes both quantitative and qualitative methods to seek out and describe the sustainability mechanisms of the GPP amidst the pandemic.

### ***Participants of the Study***

The participants of this study were the randomly selected teachers and school heads of the 15 central elementary schools of DepEd Butuan City Division which are directly involved in the GPP. There are a total of 242 elementary teachers school principals based on the computation using Slovin's Formula. All the randomly selected teachers in each school served as the participants of the study.

### ***Research Instrument***

The study used a validated questionnaire for each variable as the basis for acquiring the necessary data. The variables were the extent of practices in implementation in terms of lead cultivators, schedule of cultivation, health protocols and guidelines, distribution of harvest,

participation of students in Gulayan sa Tahanan – a GPP extension program, and monitoring and evaluation, the mechanisms in sustaining the implementation of the GPP in the new normal with the components: partnerships, crop museum, and seed banking, and funding source, and the challenges encountered in the implementation of GPP in the new normal. Part I of the questionnaire was about the extent of the implementation of the GPP in the new normal. Part II focused on the sustainability mechanisms in the implementation of the GPP in the new normal. Part III pertained to the qualitative type of questionnaire on the challenges encountered by the teachers in sustaining the GPP amidst the pandemic.

### *Data Analysis*

The following statistical tools were employed in the interpretation of data. Frequency Counts, Percentage, Weighted Mean, and Standard Deviation were used to describe the extent of practices and the sustainability mechanisms in implementing GPP in the new normal. Pearson Product Moment Correlation (Pearson  $r$ ) was utilized to indicate a significant relationship between the extent of practices and the sustainability mechanisms in the implementation of the GPP in the new normal.

## **RESULTS AND DISCUSSION**

### *The Extent of Practices in the Implementation of Gulayan sa Paaralan Program*

Table 1 presents the frequency and percentage distribution of the participants' responses as to the extent of practices in implementing the Gulayan sa Paaralan Program (GPP) in lead cultivators.

Table 1

*Frequency and percentage distribution of the extent of practices in the implementation of Gulayan sa Paaralan Program in terms of lead cultivators*

<b>Lead Cultivators</b>	<b>Frequency</b>	<b>Percentage</b>
Parents	183	75.62
Teachers	179	73.97
Pupils	108	44.63
4Ps beneficiaries	67	27.69
External stakeholders	61	25.21
GPTA officers	51	21.07
SPG officers	31	12.81
School Governing Council	23	9.50

It can be gleaned that in this new normal, majority of the schools' lead cultivators are the parents, with a percentage of 75.62%. It is followed by the teachers (73.97%) while the School

Governing Council got the lowest rate of 9.50%. This implies that the parents and teachers assume the responsibilities of the pupils in cultivating their school gardens, for they are still prohibited from coming to school because of both the local and the national health restriction protocols. Despite the current situation the school is experiencing, the GPP is still operating this because this program helps the malnourished pupils and the local community where the school is located. This program serves as the additional food basket of the locals, which allows them a lot in these trying times.

According to the DepEd Memo No. 223, s. 2016, the school shall inculcate among the learners the values of gardening, good health and nutrition, and love for labor. Thus, the school garden serves as the laboratory for students wherein they apply the theories they have learned in the four corners of the classroom to the actual gardening process. It is also the school's mandate to make sure that the establishment and maintenance of the school garden will be done through the partnership of the different stakeholders.

The pandemic has been influencing the whole food system and has revealed its fragility. Border closures, trade limitations, and containment measures have kept farmers from getting to business sectors, including purchasing the farm needs and selling their produce. Agricultural workers from reaping crops, upsetting local and international food supply, reduce access to healthy, safe, and different eating diets. Prices of goods are too high because of the limited supply (WHO, 2020). These factors encourage the parents to continue with the implementation of GPP despite all odds. In this pandemic, the food harvested from the school gardens serves as one of the food baskets, especially to the students identified as malnourished (wasted and severely wasted) and the families in need.

Table 2

*Frequency and percentage distribution of the extent of practices in the implementation of Gulayan sa Paaralan Program in terms of the schedule of cultivation*

Schedule of Cultivation	Frequency	Percentage
Once a week	85	35.12
Once a month	65	26.86
Twice a week	49	20.25
Everyday	39	16.12
Every other day	23	9.50
Every quarter	17	7.02
Twice a month	14	5.79
Semi-annually	4	1.65

Table 2 indicates the frequency and percentage distribution of the participant's responses to the extent of practices in implementing the GPP in the cultivation schedule. The table shows that the most common schedule for cultivating the school gardens is once a week (35.12 %). On the other hand, participants' responses show that the least practice regarding their cultivating

schedule is semi-annually, with a percentage of 1.65 %. During the pandemic crisis, lockdowns, and strict health restriction protocols, people are looking for ways to cope with the feeling of being in-closed for an extended period. Most of the time, they look for old and new hobbies as pastime activities and relieve them with the experienced stress and fatigue brought by this pandemic. Gardening is one of those hobbies people engage in and practice more (Troher, 2020).

As to the schools, the parents and teachers understand very well the importance of doing and cultivating their school gardens not only to have another source of food for the community to survive (Casella, 2021) but also as a way of stress reliever (Thompson, 2018; Ulrich, 2002). That is, parents and teachers prefer the schedule of cultivating their school gardens once a week.

Table 3 reflects the frequency and percentage distribution of the participants' responses regarding the extent of practices in implementing GPP in terms of health protocols and guidelines.

As depicted above, the cultivators and other responsible persons follow the health and safety guidelines set by the Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF-EID). Wearing of face mask (93.80%) is the most practiced among the health protocols and guidelines. However, filling out the health form (6.61 %) is the least practice among the said protocols and guidelines.

Table 3

*Frequency and percentage distribution of the extent of practices in the implementation of Gulayan sa Paaralan Program in terms of health protocols and guidelines*

Health Protocols and Guidelines	Frequency	Percentage
Wearing of face mask	227	93.80
Applying alcohol	186	76.86
Wearing a face shield	179	73.97
Temperature checking	166	68.6
Quarantine pass	138	57.02
Footbath	121	50
Misting	49	20.25
Filling out the Health form	16	6.61

This implies that the schools are executing the minimum health protocols and guidelines, especially implementing the GPP in the new normal. The school personnel and cultivators appreciated the government's ways of containing the spread of the virus. That is why they are doing it in their respective schools. In addition, Dr. Rajapakse, as cited by Stiepan (2020), explained that though the following restrictions may be complex, disruptive, and challenging, data suggest that these are effective to slow down the infection rate, flattened the curve if these restrictions like physical and social distancing are partnered with a comprehensive and massive contact tracing efforts.

Table 4 indicates the frequency and percentage distribution of the participant's responses to the extent of practices in implementing GPP in the distribution of the harvest.

Table 4

*Frequency and percentage distribution of the extent of practices in the implementation of Gulayan sa Paaralan Program in terms of distribution of harvest*

Distribution of Harvest	Frequency	Percentage
Pupils	189	78.1
Parents	148	61.16
Teachers	142	58.68
School head	77	31.82
Community members	65	26.86
External stakeholders	52	21.49
District supervisor	21	8.68
Division personnel	14	5.79
Selling extra produce	11	4.55

As presented in the table, the primary recipient of the GPP based on the participants' responses are the pupils (78.10 %). In comparison, the selling of extra produce got the lowest percentage of 4.55 %. Thus, the schools are faithful to their mandates to provide fresh and organic vegetables to the pupils, specifically those identified pupils who are considered malnourished (wasted and severely wasted). However, it is also stipulated that whenever their school gardens produce extra vegetables, the responsible persons assigned to implement the project sell their excess produce to the community members and other stakeholders. These findings are aligned with the mandates of the different memoranda issued by the Department of Education (DepEd). Accordingly, public elementary and secondary schools should promote vegetable production, maintain and establish food baskets to sustain its feeding programs to improve students' nutrition, showcase small scale food production models, and inculcate among the students the values of gardening, good health, love of labor, caring for others, and even improved their entrepreneurial skills (DepEd Memo No. 095, s. 2018; DepEd Memo No. 223, s. 2016; DepEd Memo No. 293, s. 2007).

Table 5 displays the frequency and percentage distribution of the participants' responses as to the extent of practices in implementing the GPP in terms of participation of students in Gulayan sa Tahanan.

As provided in the table, the highest participation rate of the students in the Gulayan sa Tahanan, an initiative done by the DepEd in this pandemic to replicate the school gardens into the students' backyard, goes to the Grades 5 and 6 pupils (85.95%). Meanwhile, the lowest participation rate belongs to the Kindergarten pupils (21.90%).



Table 5

*Frequency and percentage distribution of the extent of practices in the implementation of Gulayan sa Paaralan Program in terms of participation of students in Gulayan sa Tahanan*

<b>Participation of students in Gulayan sa Tahanan</b>	<b>Frequency</b>	<b>Percentage</b>
Grade 6	208	85.95
Grade 5	208	85.95
Grade 4	187	77.27
Grade 3	61	25.21
Grade 2	58	23.97
Grade 1	56	23.14
Kindergarten	53	21.90

It can be noted that the higher the grade level students are, the more capable they are of doing the tasks given by the teachers independently. That is why the data showed that the higher the grade level a child is, the higher its participation rate in the Gulayan sa Tahanan. Gardening is not as easy as digging soil and then calling it a day. This requires much attention, patience, love, and physical labor (Hulse, 2021). The physical capabilities of a child can sometimes hinder the participation of students in the Gulayan sa Tahanan. Students in the primary graders still need help and guidance from their guardians, especially in home-based gardening. In addition, intermediate graders are well exposed to the theories and concepts of gardening as part of their Edukasyong Pantahanan at Pangkabuhayan (EPP). That is why they can do the tasks easier compared to primary graders.

Table 6

*Frequency and percentage distribution of the extent of practices in the implementation of Gulayan sa Paaralan Program in terms of monitoring and evaluation*

<b>Monitoring and evaluation</b>	<b>Frequency</b>	<b>Percentage</b>
School Level	212	87.60
District Level	177	73.14
Division Level	38	15.70
Regional Level	33	13.64
National Level	9	3.72
Partner NGAs	8	3.31



Table 6 indicates the frequency and percentage distribution of the participants' responses as to the extent of implementing the GPP in terms of monitoring and evaluation.

As manifested in the participants' responses, the monitoring and evaluation are commonly done at the school level (87.60%), while the monitoring done by the partner National Government Agencies (NGAs) are found to be the least as characterized by its percentage rating of 3.31%. This means that the schools' administrators and teachers in charge are doing their best to monitor and evaluate the program's implementation to ensure that it will serve its purpose as mandated by the DepEd. Moreover, it is observed that the monitoring and evaluation done by partner NGAs got the lowest percentage. This is because only those schools awarded as best implementers or those that qualify for the contest on the implementation of GPP as hosted by the partner NGAs will be visited for monitoring and evaluation.

The conduct of monitoring and evaluation to any project is significant. These assess whether the project is achieving its objectives, identifies best practices and challenges encountered while implementing the project, determines its impact on its target beneficiaries, and helps the project implementers improve performance and achieve results (Yusuf et al., 2017; Otieno, 2000).

### *The Sustainability Mechanisms in the Implementation of the Gulayan sa Paaralan Program*

Table 7 indicates the mean distribution of the sustainability mechanisms in implementing the GPP in the new normal in terms of partnerships among teachers.

Table 7

*Mean distribution of the sustainability mechanisms in the implementation of Gulayan sa Paaralan Program in the new normal in terms of partnerships among teachers*

Partnerships among teachers	Mean	Description
The teachers:		
1. are the lead implementer of the program.	4.67	Always
2. provide knowledge about gardening to the students as part of their subject.	4.61	Always
3. integrate the application of organic agriculture in their school garden.	4.55	Always
4. facilitate the students in cultivating their school garden.	4.48	Often
5. attend seminar-workshops to be oriented with the new technologies in farming.	4.28	Often
<b>Weighted Mean</b>	<b>4.52</b>	Always

Legend: 4.50 – 5.00 (Always), 3.50 – 4.49 (Often), 2.50 – 3.49 (Sometimes), 1.50 – 2.49 (Seldom), 1.00 – 1.49 (Never)

It can be gleaned that the statement, "The teachers are the lead implementer of the program," got the highest mean score of 4.67, which has the verbal description of always and is interpreted as the sustainability mechanism is always applied. Moreover, the statement, "The teachers attend seminar-workshop to be oriented with the new technologies in farming," got the lowest mean score of 4.28, which has a verbal description of often and is interpreted as the sustainability mechanism is usually applied. Finally, the partnership among teachers has an overall mean of 4.52, which has a verbal description of always and is interpreted as the sustainability mechanism is always applied. This implies that in implementing GPP in elementary schools of Butuan City Division, the teachers are the lead implementer of the program. However, not all teachers are given a chance to attend seminar-workshops on the new technologies in farming as these are usually attended only by the assigned GPP coordinator and the EPP teachers at the schools.

Walk (2016) of Michigan State University Extension reiterates the composition of the garden team to ensure the successful implementation of the school gardens. The garden team should include the school administrator, teachers, school staff, parents, and community volunteers. Teachers are the lead implementers because most schools link the school gardens to the science, English, arts, and social sciences curriculum.

Table 8 describes the mean distribution of the sustainability mechanisms in implementing the GPP in the new normal in terms of partnerships among the parents.

Table 8

*Mean distribution of the sustainability mechanisms in the implementation of Gulayan sa Paaralan Program in the new normal in terms of partnerships among parents*

Partnerships among parents	Mean	Description
The parents:		
1. are the partners of the school in the implementation of the program.	4.31	Often
2. help in the cultivation of the school garden.	4.18	Often
3. share their knowledge and skills in farming to better improve the school garden.	4.03	Often
4. provide financial support to the school.	3.76	Often
5. provide seeds and other school garden supplies.	3.69	Often
<b>Weighted Mean</b>	<b>4.00</b>	Often

Legend: 4.50 – 5.00 (Always), 3.50 – 4.49 (Often), 2.50 – 3.49 (Sometimes), 1.50 – 2.49 (Seldom), 1.00 – 1.49 (Never)

As depicted, the statement, "The parents are the school partners in the implementation of the program," has the highest mean score of 4.31, which has the verbal description of often and the interpretation of the sustainability mechanism is often applied. In contrast, the statement "The parents provide seeds and other school garden supplies" got the lowest mean of 3.69, which is often interpreted as the sustainability mechanism is often applied. Also, the partnership among parents got an overall mean of 4.00, which has a verbal description of often and is considered the

sustainability mechanism often applied. Therefore, as partners of the schools in implementing the GPP, the parent's presence is often observed. However, as mentioned in the previous tables, parents' presence and participation rate during the cultivation, maintenance, and harvesting of produce is much affected by the pandemic and the new normal set-up. Moreover, not all the parents can provide seeds and garden supplies to the schools since not all of them are farmers who have their seed bank of the indigenous vegetables, and not all of them can afford to donate seeds and garden supplies since their source of income is also affected by the pandemic.

With the advent of the pandemic, the unemployment rate worldwide has reached its highest since the data collection started in 1948. It is a staggering 14.8% of the total global workforce population in April 2020 (Falk et al., 2021). At the same time, the Philippines also reached its record high in April 2020, which is 17.6% of the total workforce population (Philippine Statistics Authority, 2021).

Table 9 below shows the mean distribution of the sustainability mechanisms in implementing the GPP in the new normal in terms of partnerships among the PTA officers.

Table 9

*Mean distribution of the sustainability mechanisms in the implementation of Gulayan sa Paaralan Program in the new normal in terms of partnerships among PTA officers*

Partnerships among PTA officers	Mean	Description
The PTA Officers:		
1. are the lead persons in the cultivation of the school garden.	3.85	Often
2. help in the cultivation of the school garden.	3.81	Often
3. provide financial support to the school.	3.77	Often
4. share their knowledge and skills in farming to better improve the school garden.	3.76	Often
5. provide seeds and other school garden supplies.	3.62	Often
<b>Weighted Mean</b>	<b>3.76</b>	Often

Legend: 4.50 – 5.00 (Always), 3.50 – 4.49 (Often), 2.50 – 3.49 (Sometimes), 1.50 – 2.49 (Seldom), 1.00 – 1.49 (Never)

As shown, all the statements have the verbal description of often. For example, "The PTA officers are the lead persons in the cultivation of the school garden" got the highest mean score of 3.85, which is interpreted as the sustainability mechanism is often applied. On the other hand, the lowest mean of 3.62, interpreted as the sustainability mechanism, is often applied to the statement, "The PTA officers provide seeds and other school garden supplies." Overall, the mean score of the partnership among the PTA officers is 3.76, which is described as often and is interpreted as the sustainability mechanism is often applied.

The findings suggest that the PTA officers are also the school's partner in implementing and maintaining the school garden. Including the parents and other local areas, volunteers can

offer extra specialized support to teachers who have less knowledge and skills in cultivating the school garden. This can also help foster partnerships to support and maintain the school garden during the summer months when the teachers and students are on academic break (Walk, 2016). However, the same as the partnership with parents, the PTA officers are also affected. That is, their collaboration with the schools in implementing the GPP is also affected.

Below is table 13, which displays the mean distribution of the sustainability mechanisms in implementing the GPP in the new normal in terms of partnerships among LGU.

As observed, providing seeds and other garden supplies has the highest mean of 3.64, which has the verbal description often and is interpreted as the sustainability mechanism often applied. However, conducting benchmarking activities as hosted by the LGU has the lowest mean score of 3.42, which is described as sometimes and is interpreted as the sustainability mechanism is sometimes applied. Finally, the overall weighted mean of the partnership among the LGU is 3.53, which is described as often. Therefore, the collaboration between the school and LGU is often practiced based on the participants' responses. Often, LGU will provide seeds and garden supplies through the City Agriculture and the Barangay counterpart offices. However, due to the current situation and health emergency, benchmarking activities that will improve the program's implementation are sometimes done.

Table 10

*Mean distribution of the sustainability mechanisms in the implementation of Gulayan sa Paaralan Program in the new normal in terms of partnerships among LGU*

Partnerships among LGU	Mean	Description
The LGU:		
1. provides seeds and other school garden supplies.	3.64	Often
2. provides financial aid to the school as support to the GPP implementation.	3.54	Often
3. hosts seminar-workshops to develop the skills of teachers, students, parents, and other stakeholders in gardening.	3.54	Often
4. helps in the planning and conceptualization of the school garden.	3.52	Often
5. conducts benchmarking activities.	3.42	Sometimes
<b>Weighted Mean</b>	<b>3.53</b>	Often

Legend: 4.50 – 5.00 (Always), 3.50 – 4.49 (Often), 2.50 – 3.49 (Sometimes), 1.50 – 2.49 (Seldom), 1.00 – 1.49 (Never)

Benchmarking activities are very much crucial in improving a program. These activities are meant to compare, adopt good and best practices and continuous institutional development. These are also used to innovate and offer sustainable and sound effects in an organization (Achim, 2009). This is also a means of assessing whether an organization is working well concerning others and identifying performance gaps and areas for improvement. Moreover, Nyaoga's (2013) study found that benchmarking practices were positively correlated with the performance achieved.

Table 11 below illustrates the mean distribution of the sustainability mechanisms in implementing the GPP in the new normal in terms of partnerships among government agencies.

As noted, the indicator, "The partner government agencies provide seeds and other school garden supplies," has the highest mean of 3.74, which is described as often. That is, this sustainability mechanism is often applied or practices. On the other hand, the indicator, "The partner government agencies provide financial aid to the school to support the school garden," got the lowest mean score of 3.51, which is described as often. Moreover, the partnership among government agencies has an overall mean of 3.67, which is described as often. That is, this sustainability mechanism is often applied at this time of the pandemic. Unlike the old normal, government agencies are focused on controlling the spread of the virus, and a part of their budget is sliced to be used on the programs to lessen the spread of the virus.

Table 11

*Mean distribution of the sustainability mechanisms in the implementation of Gulayan sa Paaralan Program in the new normal in terms of partnerships among government agencies*

Partnerships among government agencies	Mean	Description
The partner government agencies:		
1. provide seeds and other school garden supplies.	3.74	Often
2. conduct contests acknowledging the best GPP implementers.	3.74	Often
3. help in the planning and conceptualization of the GPP implementation in your school.	3.69	Often
4. host seminar-workshops to develop the skills of teachers, students, parents, and other stakeholders in gardening.	3.69	Often
5. provide financial aid to the school to support the school garden.	3.51	Often
<b>Weighted Mean</b>	<b>3.67</b>	Often

Legend: 4.50 – 5.00 (Always), 3.50 – 4.49 (Often), 2.50 – 3.49 (Sometimes), 1.50 – 2.49 (Seldom), 1.00 – 1.49 (Never)

As cited by Lee (2020), Finance Secretary Carlos Dominguez explains that the Philippine government set aside a \$23 billion budget for strengthening the healthcare system and economic efforts to fight against Covid 19 and its most terrible effect (Lee, 2020). In addition, a total of ₱ 34.5 billion was removed from national agencies' budget and was diverted to Covid 19 response, as explained by Assistant Budget Secretary Rolando U. Toledo (De Vera, 2020).

Table 12 indicates the mean distribution of the sustainability mechanisms in implementing the GPP in the new normal in terms of partnerships among external stakeholders.

As indicated in the table, the statement, "The school's external stakeholders partner with the school in implementing GPP," has the highest mean score of 3.89. The lowest mean score of

3.65 belongs to the statement, "The school's external stakeholders help in the cultivation of the school garden. Both the statements have the verbal description of often. Meaning these sustainability mechanisms are often applied. The overall mean for the partnership among external stakeholders is 3.75, which is described as often. This indicates that the study participants do not always observe collaboration between the schools and the external stakeholders.

Table 12

*Mean distribution of the sustainability mechanisms in the implementation of Gulayan sa Paaralan Program in the new normal in terms of partnerships among external stakeholders*

Partnerships among external stakeholders	Mean	Description
The school's external stakeholders:		
1. partner with the school in the implementation of GPP.	3.89	Often
2. help in the planning and conceptualization of the GPP implementation in your school.	3.78	Often
3. provide seeds and other school garden supplies.	3.73	Often
4. provide financial aid to the school to support the school garden.	3.68	Often
5. help in the cultivation of the school garden.	3.65	Often
<b>Weighted Mean</b>	<b>3.75</b>	Often

Legend: 4.50 – 5.00 (Always), 3.50 – 4.49 (Often), 2.50 – 3.49 (Sometimes), 1.50 – 2.49 (Seldom), 1.00 – 1.49 (Never)

The external stakeholders, just like other people at present, are affected by the impacts of the Covid 19 pandemic on the economy. It is also seen that because of those factors, helping the schools cultivate their school gardens will only depend on the free time after work and quarantine pass schedule where they are only allowed to go out.

Agriculture teachers' passion, determination, and commitment are required for a successful School Garden Program. The program's effectiveness depends on school administrators and other stakeholders (Oro, 2018). Garden celebrations can also include family members and community stakeholders, giving children an opportunity to show off their work. Students have expressed that exhibiting what they have done and tasting the garden fruit makes them feel unique and proud (Swank & Swank, 2013).

Table 13 discusses the mean distribution of the sustainability mechanism in implementing the GPP in the new normal in crop museums and seed banking.

As indicated, "The school discusses to the students how to preserve indigenous seeds for future use" has the most prominent mean of 4.00 or often. The statement "The school has a crop museum available for the pupils to use" got the smallest mean of 3.60 or often. The practice of having crop museums and seed banking has an overall mean of 3.84 or often. Meaning, having a crop museum and seed banking can be described as a sustainability mechanism that the schools

often apply. It is evident that though the teachers discuss the importance of preserving the indigenous seeds for future use, the crop museum is not always present in all the schools.

Though the teachers are teaching the students the importance of preserving indigenous seeds, not all the schools are diversifying the crops in their school garden, which can then serve as the crop museum of the school, showing the indigenous and locally adaptive crops. This is because the schools are still collecting and propagating these locally adaptive and indigenous crops. These crops, if not preserve, can be lost. Thus, the schools are doing their best to propagate and grow those crops and then preserve them through seed banking strategies.

Table 13

*Mean distribution of the sustainability mechanisms in the implementation of Gulayan sa Paaralan Program in the new normal in terms of crop museum and seed banking*

Crop museum and seed banking	Mean	Description
The school:		
1. discusses to the students how to preserve indigenous seeds for future use.	4.00	Often
2. explains to the pupils and other stakeholders the importance of doing seed banking and crop museum.	3.9	Often
3. assigns a teacher in-charged to facilitate the seed banking procedures and to maintain and manage the crop museum.	3.86	Often
4. practices seed banking and displayed the seeds in the crop museum.	3.83	Often
5. has a crop museum available for the pupils to use.	3.60	Often
<b>Weighted Mean</b>	<b>3.84</b>	Often

Legend: 4.50 – 5.00 (Always), 3.50 – 4.49 (Often), 2.50 – 3.49 (Sometimes), 1.50 – 2.49 (Seldom), 1.00 – 1.49 (Never)

Children's learning laboratories are crop museums. It allows young children to interact with their natural surroundings (soils, plants, biological life, and so on) while learning about science. Crop museums are essential tools for schools and communities to reintroduce and conserve the biodiversity of climate-smart crops, which are also nutritious. In addition, crop museums perform vital tasks such as seed search missions, seed exchanges, seed saving/storage, and seed sales to local communities (Oro et al., 2018).

Table 14 exhibits the mean distribution of the sustainability mechanisms in implementing the GPP in the new normal regarding funding source.

The table reveals that the school often asks the parents' help through the GPTA Officers for financial aid to sustain the school garden, characterized by its mean score of 4.49. Asking the help of the partner NGAs for financial support and garden supplies got the lowest mean of 3.95 or often. As a whole, the sustainability mechanism done by the schools in the new normal in



terms of funding source got the overall mean of 4.12 or described as often. All the indicators under the funding source are often applied. As perceived, through the leadership of the GPTA officers, the parents are helping the school in terms of manpower and finances.

As partners in educating their children, it is good to note that they appreciate the importance of implementing the program, so they are giving full support to the program. However, due to the pandemic, this support is not always observed knowing the different factors affecting such. It is also evident that the NGAs are also extending help in terms of financial support and garden supplies. Although, this support may not be given to all the schools knowing its vast number.

Table 14

*Mean distribution of the sustainability mechanisms in the implementation of Gulayan sa Paaralan Program in the new normal in terms of funding source*

<b>Funding source</b>	<b>Mean</b>	<b>Description</b>
The school:		
1. asks the help of the parents through the GPTA Officers for financial aid to sustain the school garden.	4.29	Often
2. looks for outside funding sources aside from the allocated budget.	4.17	Often
3. allocates budget to sustain the implementation of the GPP.	4.16	Often
4. asks the help of the LGU for financial aid.	4.14	Often
5. allocates a portion of the school garden's income to sustain its implementation.	4.00	Often
6. partners with national government agencies for financial support and garden supplies.	3.95	Often
<b>Weighted Mean</b>	<b>4.12</b>	<b>Often</b>

Legend: 4.50 – 5.00 (Always), 3.50 – 4.49 (Often), 2.50 – 3.49 (Sometimes), 1.50 – 2.49 (Seldom), 1.00 – 1.49 (Never)

In Sorsogon, The Department of Agriculture (DA) is in charge of implementing the Gulayan sa Paaralan Program, as well as providing production inputs including seeds, organic fertilizers, and gardening tools, as well as facilitating pieces of training for the teachers as a way of strengthening the implementation of the program (Calipay, 2018). This shows that collaboration between the DepEd and other National Agencies is possible and will provide a good result.

### **Correlation Analysis**

Table 15 presents the correlation analysis of the participant's responses on the extent of practices in the implementation and sustainability mechanisms in sustaining the implementation of the GPP in the new normal.

The obtained data show that the lead cultivators (p-value: 0.002), schedule of cultivation (p-value: 0.004), health protocols and guidelines (p-value: 0.007), distribution of harvest (p-value: 0.000), and participation of students (p-value: 0.005) are considered to have a significant relationship with the sustainability mechanisms. Meanwhile, the monitoring and evaluation (p-value: 0.120) have no significant relationship to the sustainability mechanism done by the schools in the implementation of the GPP in the new normal. Meaning, all the extent of practices except for the monitoring and evaluation has a low positive correlation to the sustainability mechanisms (R-values: 0.202, 0.183, 0.174, 0.228, and 0.178, respectively). As the extent of practices in terms of the lead cultivator, schedule of cultivation, health protocols and guidelines, and distribution of harvest tend to go up, the sustainability mechanisms in implementing the GPP will somehow go up; however, their relationship is not very strong.

Table 15

*Correlation analysis between the extent of practices in implementation and sustainability mechanisms in sustaining the implementation of Gulayan sa Paaralan Program in the new normal*

Variables	r	Sig. (2-tailed)
Sustainability mechanisms		
• Lead cultivators	0.202	0.002*
• Schedule of cultivation	0.183	0.004*
• Health protocols and guidelines	0.174	0.007*
• Distribution of harvest	0.228	0.000*
• Participation of students	0.178	0.005*
• Monitoring and evaluation	0.100	0.120 <sup>ns</sup>

\* significant @ 0.05 level

<sup>ns</sup> not significant @ 0.05 level

The results were supported by the same initiative in Papua New Guinea. Just like other countries with confirmed Covid 19 cases, the school garden is still practiced. In Lae Secondary School Garden, partnership with stakeholders is evident. Community, NGOs, and local partners are working hand-in-hand to maintain the program amidst the pandemic. The project has brought together diverse stakeholders, including local companies and industry, who donated in-kind goods and services. There are still many more outside the local region who want to join the said endeavor. The feedback has been incredibly favorable and encouraging, resulting in the program's success, especially in providing an alternative food basket during the pandemic (Cornish, 2020). The observed practices in terms of cultivators, financial and in-kind donations have contributed significantly to the program's success.

## CONCLUSIONS

Considering the findings of the study, the following conclusions are drawn:

First, despite the current situation, the GPP is still operating in the schools of Butuan City Division which provides a source of organic vegetables to the pupils, especially those who are malnourished (wasted and severely wasted) as well as the additional food basket of the locals and community members in this trying times. Second, instead of the pupils, the parents and teachers assume the responsibilities of the pupils in cultivating their school gardens, for they are still prohibited from coming to school because of both the local and the national health restriction protocols. Third, the people in charge are following the minimum health protocols set by the IATF-EID. However, protocols that will help in fast-tracking the contact tracing efforts are not given priority. Lastly, the monitoring and evaluation are most of the time done at the school level.

Even though parents assumed the pupils' responsibilities to cultivate their school gardens during the pandemic, the participation rate of the parent cultivators is still low. Even if the schools are already successful in sustaining the performance of the GPP in the new normal set-up, cultivators still need enough garden materials and tools available. The allocation for the GPP from the MOOE is also affected in this pandemic since the abrupt change of the learning modality; schools are spending more on preparing and producing students' modules.

Concerning the sustainability mechanisms, the teachers are the lead implementer of the program. However, not all teachers are given a chance to attend seminar workshops on the new technologies in farming as these are usually attended only by the assigned GPP coordinator and the EPP teachers at the schools. Parents, PTA officers, and external stakeholders' presence and participation rate during the cultivation, maintenance, and harvesting of produce is much affected by the pandemic and the new normal set-up. Funding for the school garden is also part of their support. Though the LGU and other government agencies support the program, benchmarking activities are sometimes done due to the current situation and health emergencies. Though the teachers are teaching the students the importance of preserving indigenous seeds, not all the schools are diversifying the crops in their school garden, which can then serve as the crop museum of the school, showing the indigenous and locally adaptive crops.

All the extent of practices except monitoring and evaluation has a low positive correlation to the sustainability mechanisms. As the extent of practices in terms of the lead cultivator, schedule of cultivation, health protocols and guidelines, and distribution of harvest tend to go up, the sustainability mechanisms in implementing the GPP will somehow go up; however, their relationship is not very strong.

In terms of influence, all the mentioned extent of practices cannot predict the school's sustainability mechanism in implementing the GPP in the new normal.

## SUGGESTIONS AND RECOMMENDATIONS

In line with the summary of findings and conclusions, the following recommendations are hereby proposed:

1. The schools are encouraged to continue implementing the Gulayan sa Paaralan Program in their respective schools. This program contributes significantly to the pupils' physical well-being and nutrition and benefits the community members where the school is situated. Moreover, the school administrators and school heads are encouraged to intensify their contact tracing efforts by ensuring that all the persons in charge fill out the health forms when coming to the school premises. It also encouraged to align the cultivation schedule to the parents' free time to increase the participation rate. A rewards mechanism can also be applied to encourage more participation. The schools are further encouraged to diversify their crop museum showing the different indigenous and hardy crops found in the locality.
2. If possible, the expenses for maintaining the operation of the GPP, such as seeds, organic fertilizer, and garden tools and materials, will be included in the school's MOOE funds.
3. The division GPP coordinator may include all the interested teachers in the seminar workshops on farming technologies. Online benchmarking activities can be done in lieu of the face-to-face way of sharing the best practices related to the implementation of the GPP.
4. Monitoring and evaluation may be planned carefully by the division GPP coordinator and the schools and district counterparts to develop a contextualized tool and plan.

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