

# **Project E-PERA-SAFE** **(Enhance Partners Engagement in bringing Recycled materials Amidst the Pandemic in School's Advocacy on Flood and other disasters in the Environment)**

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## **Abstract**

Barangay Dela Paz, the community where Dela Paz Main Elementary School is situated, is a flooded area due to improper waste disposal. Poor solid waste management will lead to various problems in health, the environment, and socio-economic aspects. Since, educational institutions and agents change and through Republic Act 9003, otherwise known as the Ecological Solid Waste Management Act of 2000. Waste management is managing waste by disposal and recycling it, which utilizes environmentally sound methods that maximize the utilization of valuable resources and encourage resource conservation and recovery. In this study, a descriptive–quantitative approach was utilized using the researcher-made instrument. A total of 366 Grade 3 pupils participated in the study from Dela Paz Main Elementary School of which 33 are Narra, 34 are Mahogany, 34 are Molave, 34 are Yakal, 33 are Ipil-ipil, 34 are Pinetree, 32 are Golden Shower, 34 are Cablero, 33 are Acacia, 32 are Kamagong and 34 are Apitong pupils. However, grade 3 pupils have low knowledge of the different laws relevant to solid waste management, television or radio, parents, and social media are the sources of this awareness. This is where **Project E-PERASAFE (Enhance - Partners Engagement in bringing Recycled Materials Amidst pandemic in School's Advocacy on Flood and other disasters in the Environment)** transpires. The result shows that pupils have enough knowledge in terms of the definition of solid waste, the effect of improper solid waste disposal, solid waste prohibited activities, school initiatives towards solid waste, the importance of solid waste management, learners' and stakeholders' responsibilities in bringing recycled materials in school. The outcome also demonstrates that learners follow appropriate solid waste management procedures when it comes to segregation, reduction, reuse, recycling, and disposal.

Crucially, though, is the community's or stakeholders' active participation in school projects by providing recycled materials. The most common metric by determine the percentage rate of participation of stakeholders during the period of implementation. It was once utilized to support the school's beautifying efforts and the creation of innovative materials for workplace safety. Additionally, it helps the grade 3 teachers to inspire the stakeholders to actively engage in the school project and provide support during its implementation.

Keywords: assessment, awareness, management, practices, solid waste

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## **1. INTRODUCTION**

In Barangay Dela Paz, where Dela Paz Main Elementary School is situated, improper waste disposal has caused flooding. When assessing our school, the most important aspects of creating a child-friendly environment are recycling and securing school safety with stakeholders engagement. According to Republic Act 9003, otherwise known as the Ecological Solid Waste Management Act of 2000, waste management entails recycling and disposing of garbage. Furthermore, it requires appropriate methods for considering the surrounding circumstances, particularly in a community or school. For example, there are several ways to dispose of waste, and recycling is one of them. Recycling is necessary for several reasons. It lessens waste production and environmental impact. Additionally, it recycles a lot of items that are easily transformed into innovative materials in school.

A school recycling project can help stakeholders to be aware of where all that trash goes and the fact that it 'go', doesn't just 'go away'. Solid waste management is one of the environmental challenges that Barangay Dela Paz is struggling. In this equation, environmentally friendly and sustainable measures to manage the waste are important to the attention of future generations, because they are the ones that will have to live with the consequences.

Locally, it has been observed that although the schools are doing their best in linking with the different school stakeholders, still declining results have been reported by schools on some of the school-initiated activities or projects. Hence, the findings of the various studies that reflect the need to address the existing poor level of participation of the different stakeholders in school- initiated activities are the main reason for the researchers to conduct this study.

Resources that can be stored in the Material Recovery Facility (MRF) include papers, plastics, glasses, bottles, tin cans, and other waste items. Waste can be turned into money by selling it to junk shops, which can then be used to improve the school's appearance and create unique materials for a safe working environment. It is committed that eleven Grade 3 teachers together with the stakeholders of Dela Paz Main Elementary School will support the school project E-PERA-SAFE to save Mother Erath and ensure a safe environment. Thus, this study aims to strengthen the grade 3 teachers to motivate the stakeholders to participate actively in school project to become supportive during its implementation.

The study assessed the level of stakeholder engagement through a teacher-made checklist which was validated by the school head and Master Teachers. Following the survey in selecting the respondents of this study, the researcher has chosen the grade 3. Based on the results of the quarterly monitoring of stakeholders engagement, none of the participants was identified as not supportive.

Generally, the results revealed that there was a big increase of participants' engagement in the school project from the first quarter to the fourth quarter. The change brought about by the intervention school project is revealed by a difference in the percentage of results of the level of participation of the stakeholders.

## 1.1 Objectives of the Study

This study aimed to enhance the school partners' engagement of Grade 3 teachers and learners of Dela Paz Main Elementary School through Project E-PERASAFE.

Specifically, it sought to answer the following questions:

1. What is the level of Grade 3 stakeholders' engagement on school Project E-PERASAFE?
2. Is Project E-PERA-SAFE an effective intervention among stakeholders of Dela Paz Main Elementary School (DESM) to support and elicit solid waste management?
3. What innovative materials may be produced through Project E-PERASAFE?

## 2. METHODOLOGY

### 2.1 Research Design

Quantitative data analysis was used in this study. The data was analyzed and interpreted using frequency, average, and percentage to identify the percentage of grade 3 stakeholders' engagement in Dela Paz Main Elementary School Project E-PERASAFE. Observations and analysis were employed during the implementation of the project. Then, the researcher looked at and recorded the implications.

Qualitative and/or quantitative methods used in analyzing the data. The study employed the Quantitative method for data to be organized, compared, analyzed, and identified. Descriptive statistics including frequency and percentage helped the researcher/s identify the level of engagement of the stakeholders in the school project. Monitoring and analysis were applied during the implementation of Project E-PERA-SAFE.

### 2.2 Respondents of the Study

The respondents of the study were from all eleven (11) sections a total of 366 Grade 3 pupils participated in the study from Dela Paz Main Elementary School of S.Y. 2022-2023 which 33 are Narra, 34 are Mahogany, 34 are Molave, 34 are Yakal, 33 are Ipil-ipil, 34 are Pinetree, 32 are Golden Shower, 34 are Cabllero, 33 are Acacia, 32 are Kamagong and 34 are Apitong pupils with ten teachers and one master teacher. The respondents were chosen purposively since the study primarily focused on the stakeholders to actively engage in the school project and provide support during its implementation. It is believed that they are the ones who can give a clear picture and accurate data for the interpretation of the results.

### 2.3 Research Instrument

The researcher/s used a self-made monitoring tool or checklist to check its effectivity, in addition they used a certificate and thank you card for stakeholders recognition. They presented it to the School head and Master teacher of Dela Paz Main Elementary School for some suggestions and validation. The researcher/s asked for the consent of the respondents before distributing the tools and explained how to accomplish it.

Data gathering instruments on the respondents’ level of engagement with the school procedures of the project before and after the study; on the tracking of the start and end line of every procedure; and on the effectiveness of the process employed in this research. Respondents were also interviewed to verify their responses in these data collection instruments.

## 2.4 Statistical Treatment

The teacher-researcher asked permission from the School Head and parents of the learners to conduct the study. They also asked for validation from the School head and Master Teacher to verify the content of the instruments and materials used in the study.

After the approval, the teacher-researcher conducted the monitoring of stakeholders' engagement in bringing recycled materials every Friday. After the monitoring, a post-monitoring was conducted to see their progress. The data collected in this study will organized and classified based on the research design and the problems formulated. As soon as the selected participants accomplished all instruments, consolidation of results was executed. These results were analyzed using percentage distribution, and descriptive statistics. Then, interpretation was performed to discuss the results of the study. The data will be encoded, tallied, and tabulated to facilitate the presentation and interpretation of results using the following:

**Percentage Method**- used in determining the percent or part of a variable. It follows the formula:

$$P = \frac{F \times 100}{N}$$

Where: P=Percentage

F = Frequency

N = Sample Size

**Descriptive statistics:** Total Weighted Average (mean) was used to answer the problem.

$$\text{Formula: } X = \frac{x_1 + x_2 + x_3 + x_4 + x_5}{n}$$

Where:

X = Mean

x = Individual Item

n = Number of Items

## 3. RESULTS AND DISCUSSION

### A. Results

**Table 1: Percentage of Pre-Monitoring of Stakeholders engagement in School Project**

Grading Period	Grade Level	Percentage (%) of Stakeholders who bring recycled materials
First Quarter	Kinder	63 %
	Grade I	68 %
	Grade II	61 %
	Grade III	47 %
	Grade IV	70 %
	Grade V	65 %
	Grade VI	74 %

**Table 1** represents the percentage of K-6 stakeholders' involvement in Dela Paz Main Elementary School during the implementation of Project E-PERA-SAFE. This shows that Grade three stakeholders got the lowest participation.

**Legend:**

No. of stakeholders per section	Percentage (%)	Level of stakeholders' engagement
26-34	75%-100%	Supportive
17-25	50%-74%	Partially Supportive
16-below	49%-below	Not Supportive

**Table 3: Grade 3 Stakeholders' level of engagement in a school project**

Quarter	Enrolment	No. of stakeholders who bring recycled materials	Percentage (%)	Level of stakeholders' engagement
First	366	173	47%	Not Supportive
Second	361	310	87%	Supportive
Third	353	321	88%	Supportive
Fourth	353	326	94%	Supportive
			<b>90%</b>	<b>Supportive</b>

Table 2 shows that in the Second Quarter a big difference it increases to 40%. During the Third and Fourth Quarter, the improvement is evident. This period of implementation shows a great impact on stakeholders' involvement in grade three, which result in 90% of their engagement in school projects during the three consecutive quarter.

- Executive data of statistical analysis/data analysis

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**Table 2: Pre-Monitoring of Stakeholders engagement in School Project**

Section	Enrolment (First Quarter)	No. of Grade 3 stakeholders who bring recycled materials	Percentage (%)
III-Narra	33	15	45%
III-Mahogany	34	16	47%
III-Molave	34	14	41%
III-Yakal	34	15	45%
III-Ipil-ipil	33	17	52%
III-Pine Tree	34	16	47%
III-Golden Shower	32	15	45%
III-Caballero	34	18	53%
III-Acacia	33	15	45%
III-Kamagong	32	18	53%
III-Apitong	34	14	41%
Total	366	173	47%

Table 2 represents the percentage of Grade 3 stakeholders' engagement on School Project E-PERASAFE. They got 47% which shows that they are Partially supportive.

**Legend:**

No. of stakeholders per section	Percentage (%)	Level of stakeholders' engagement
26-34	75%-100%	Supportive
17-25	50%-74%	Partially Supportive
16-below	49%-below	Not Supportive

**Table 3: Quarterly Monitoring of Stakeholders' engagement in School Project**

Section	Enrolment (Second Quarter)	No. of Grade 3 stakeholders who bring recycled materials	Percentage (%)
III-Narra	31	25	86%
III-Mahogany	33	30	91%
III-Molave	34	28	82%
III-Yakal	34	30	88%
III-Ipil-ipil	33	28	85%
III-Pine Tree	34	30	88%
III-Golden Shower	33	28	88%
III-Caballero	32	27	87%
III-Acacia	34	30	88%
III-Kamagong	33	27	90%
III-Apitong	32	27	87%
<b>Total</b>	<b>361</b>	<b>310</b>	<b>87%</b>

Table 3 this represents the increase of 40% Grade 3 stakeholders' engagement on School Project E-PERASAFE.

**Table 4: Quarterly Monitoring of Stakeholders engagement in School Project**

Section	Enrolment (Third Quarter)	No. of Grade 3 stakeholders who bring recycled materials	Percentage (%)
III-Narra	29	26	90%
III-Mahogany	33	30	91%
III-Molave	33	29	88%
III-Yakal	34	31	91%
III-Ipil-ipil	32	29	91%
III-Pine Tree	34	31	91%
III-Golden Shower	32	29	91%
III-Caballero	31	28	90%
III-Acacia	34	32	91%
III-Kamagong	30	28	93%
III-Apitong	31	28	90%
<b>Total</b>	<b>353</b>	<b>321</b>	<b>88%</b>

Table 4 during the quarterly monitoring represents another increase of percentage of Grade 3 stakeholders' engage School Project E-PERASAFE

**Table 5: Post-Monitoring of Stakeholders engagement in School Project**

Section	Enrolment (Fourth Quarter)	No. of Grade 3 stakeholders who bring recycled materials	Percentage (%)	Total Percentage (%) and Interpretation
III-Narra	29	27	93%	
III-Mahogany	33	32	97%	

<b>III-Molave</b>	33	<b>31</b>	<b>94%</b>	
<b>III-Yakal</b>	34	<b>33</b>	<b>97%</b>	
<b>III-Ipil-ipil</b>	32	<b>30</b>	<b>94%</b>	
<b>III-Pine Tree</b>	34	<b>31</b>	<b>91%</b>	
<b>III-Golden Shower</b>	32	<b>29</b>	<b>91%</b>	
<b>III-Caballero</b>	31	<b>28</b>	<b>90%</b>	
<b>III-Acacia</b>	34	<b>33</b>	<b>97%</b>	
<b>III-Kamagong</b>	30	<b>28</b>	<b>93%</b>	
<b>III-Apitong</b>	31	<b>29</b>	<b>94%</b>	
<b>Total</b>	<b>353</b>	<b>326</b>	<b>94%</b>	<b>90% - SUPPORTIVE</b>

Table 4 this shows during the implementation period of the studies, using the self-made monitoring the grade three advisers to track the progress of their stakeholders engagement on Project E-PERA-SAFE. The advisers used different strategies to involve their parents. As we can see in the Second Quarter we can see a big difference it increases to 40%. During the Third and Fourth Quarter, the improvement is evident. This period of implementation shows a great impact on grade three stakeholders' engagement in school projects, which resulted to 90% of their participation in school activities during the scheduled date.

### Discussion

The study assessed the level of stakeholder engagement through a teacher-made checklist which was validated by the school head and Master Teachers. Following the survey in selecting the respondents of this study, the researcher has chosen the grade 3. Based on the results of the quarterly monitoring of stakeholders engagement, none of the participants was identified as not supportive.

After the implementation of the intervention of the school project, a post-monitoring was conducted and it was revealed that 90%, meaning most of the participants were identified as supportive. Generally, the results revealed that there were a big increase of participants engagement in the school project from the first quarter to fourth quarter. The change brought about by the intervention school project is revealed by a difference in the percentage of results of the level of participation of the stakeholders.

On the implications documented by the researcher/s, the schedule of bringing recycled must be considered since the class schedule of the learners are different. For the next implementation of Project E-PERA-SAFE must regularly bringing recycled materials to ensure that the engagement of stakeholders are more evident. In addition, teachers must create different strategies to motivate the stakeholders to bring recycled regularly. Moreover, since some parents/guardians were not engaged in the school project, it is ideal to conduct an orientation or Focus Group Discussion with them to be aware and enlightened on the importance of recycling in school and engagement in school projects

## 4. CONCLUSION AND RECOMMENDATION

### Conclusion

The empirical findings of this research led to the following conclusions:

1. None of the respondents was identified as partially supportive nor not supportive in the quarterly monitoring.
2. After the implementation of the intervention of the school project, all of the participants or stakeholders become supportive in bringing recycled materials which they attained the percentage of 90% of their engagement.
3. Based on the Quarterly monitoring of stakeholders' engagement, there is big difference between the First quarter to the fourth quarter percentage of the participants, meaning the Grade three stakeholder has significantly improved their level of engagement

### Recommendations

Based on the findings, it is recommended that the implementation of Project E-PERA-SAFE must continue and be the basis for the School Improvement Plan(SIP) of the school. Furthermore, the following recommendations are proposed:

1. Teachers must integrate the use of recycling in their lessons for their awareness on proper waste management.
2. Since the school project is proven effective and has a significant effect on the stakeholders engagement, other grade level may adopt the materials used in this study or they may create their own materials depending on the needs of their stakeholders.
3. Teachers must encourage the stakeholder to improve their participation on school projects and help them to realize the importance and value of recycling.
4. Furthermore, research may be conducted by focusing on the innovative materials that can produce or procure from the save money of the project.

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