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Assessment of the Water Supply, Sanitation, and Hygiene Promotion (WASH Program) of Selected Elementary School in Camarines Sur

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Abstract
This study assesses the Water Supply, Sanitation, and Hygiene Promotion (WASH Program) in selected elementary schools in Camarines Sur, Philippines, focusing on water management, sanitation, hygiene practices, health education, and deworming. Using a convergent parallel mixed-methods approach, the study examined the implementation of DepEd Order No. 10, s. 2016, Policy and Guidelines for the Comprehensive WASH in Schools (WINS) Program during the 2023–2024 academic year. Findings indicate that schools generally comply with WASH standards, particularly in water management and health education. However, gaps in sanitation, hygiene practices, and deworming compliance weakened by the pandemic highlighting the need for improvements in facilities and practices. Strengthening WASH programs is recommended to support sustainable development goals related to education and health.

Keywords: WASH Program, School, Camarines Sur

Introduction

Water, sanitation, and hygiene (WASH) conditions often worsen during emergencies and disasters due to disrupted or damaged facilities. This increases the risk of vector- and water-borne diseases, such as cholera and typhoid, particularly among vulnerable groups, including women, children, older persons, persons with disabilities, and displaced populations (Administrative Order No. 2020-0039). The Sphere Minimum Standards emphasize the right to safe water, sanitation, and hygiene as part of the Humanitarian Charter.

In the Philippines, DepEd Order No. 10, s. 2016, established the Comprehensive Water, Sanitation, and Hygiene (WinS) Program to promote hygienic practices and a safe learning environment in schools. The program aligns with SDG 4, supporting inclusive and quality education by addressing water supply, sanitation, hygiene, deworming, and health education. The Three Star Approach (TSA) allows schools to self-assess and improve WASH conditions progressively.

Implementation data show strengths in health education, water provision, and deworming, with high distribution of WASH IEC materials and semi-annual deworming. However, challenges persist, including

irregular water quality monitoring, inadequate hygiene and sanitation practices, lack of gender-segregated toilets, limited waste segregation, and insufficient handwashing facilities. These gaps highlight the need for targeted interventions.

From SY 2009–2010 to 2017–2018, 43,810 schools were affected by natural hazards, and 21,949 by human-induced hazards, underscoring the sector's vulnerability. This study, Assessment of the Water Supply, Sanitation, and Hygiene Promotion (WASH Program) of Selected Elementary Schools in Camarines Sur, aims to:

1. Assess WASH implementation in water, sanitation, hygiene, health education, and deworming;
2. Identify issues and concerns affecting program delivery; and
3. Recommend activities to address these issues and enhance school WASH conditions.

Methodology

A purposive sampling approach was employed, focusing on selected elementary schools in the 4th district of Camarines Sur, namely Sagñay and Tigaon, to conduct an assessment. A convergent parallel mixed-method design was adopted, collecting qualitative and quantitative data simultaneously. Qualitative data were gathered through key informant interviews with school principals and relevant staff, supplemented by direct observations of the schools' Water, Sanitation, and Hygiene (WASH) facilities and practices. Quantitative data were collected using a structured checklist based on DepEd Order No. 10, s. 2016, Policy and Guidelines for the Comprehensive WASH in Schools (WINS) Program, and analyzed using Likert-scale ratings with mean calculations. Data collection was conducted in April 2024, and findings from both strands were integrated for a comprehensive assessment.

This section will discuss the outcomes of the assessments and observations carried out during visits to specific locations, focusing on the Comprehensive Water, Sanitation, and Hygiene Promotion in Schools (WASH) Program.

Results and Discussion

This section will discuss the outcomes of the assessments and observations carried out during visits to specific locations, focusing on the Comprehensive Water, Sanitation, and Hygiene in Schools (WASH) Program. It will detail the program's components.

A. Assessment of the WASH Program of Schools A and B

Basic Requirements and Standards on Water

The practices on basic requirement and standards on water were assessed in selected elementary schools in Camarines Sur. School A obtained a mean score of 4.00, indicating an excellent rating. At the same time, School B achieved a mean score of 3.20, translating to a Moderately Observed (MO). The assessment took into account the following factors: a) regular supply of safe drinking water, b) the regular supply of safe and clean drinking water, c) the presence of rainwater catchment systems, d) the daily cleaning and maintenance of the facilities, and e) the monitoring of water quality.

Contrary to School A, School B did not have a rainwater harvester installed, which is crucial for maintaining proper hygiene and sanitation during emergencies. This observation was poor because the school had installed alternative water harvester, such as pale water, which were only used for watering plants and not for hand washing. In overall rating, the schools gained an average of 3.60, which is interpreted as excellently observed (EO). Based on the studies of A. Agravante et al., (2017). the result updating National Drinking-water Standards in the Philippines Experience is that a regular supply of

safe drinking water is crucial for public health, as waterborne diseases are a leading cause of morbidity in the Philippines, while clean water for various purposes ensures the well-being of communities and prevents outbreaks of diseases related to contaminated water sources. Also, installing rainwater catchment systems can supplement water sources and provide an alternative during water supply disruptions. Moreover, daily cleaning and maintenance of water sources help preserve water quality and prevent contamination; water quality monitoring is essential to ensure compliance with standards, identify contamination risks, and take corrective actions promptly.

Table 1. Basic Requirements and Standards on Water.

PARTICULARS	SCHOOL A		SCHOOL B		OVERALL	
	WM	I	WM	I	WM	I
Regular supply of safe drinking water.	4.00	EO	4.00	EO	4.00	EO
Clean water for various purposes.	4.00	EO	4.00	EO	4.00	EO
Installation of rainwater catchment systems.	4.00	EO	2.00	PO	3.00	MO
Daily cleaning and maintenance.	4.00	EO	3.00	MO	3.50	EO
Water quality monitoring.	4.00	EO	3.00	MO	3.50	EO
M	**4.00**	**EO**	**3.20**	**MO**	**3.60**	**EO**

Note. School A = Nato Elementary School; School B = Vinagre Elementary School. WM = Weighted Mean; GM = Grand Mean. Rating scale interpretation: 3.26–4.00 = Excellently Observed (EO); 2.51–3.25 = Moderately Observed (MO); 1.76–2.50 = Poorly Observed (PO); 1.00–1.75 = Not Observed (NO).

Basic Requirements and Standards along Sanitation

The following is a summary of the results for the basic requirements for Sanitation, as shown in Table 2. The School A achieved an excellent rating with an overall score of four (4.00). In contrast, School B received a good rating with a mean average of 2.77, interpreted as Moderately Observed (MO), and a rating range of 2 to 4.

The School B obtained a rating of two (2) for nine (9) indicators. Firstly, all school canteens must obtain a sanitary permit from the Local Health Office. Secondly, school personnel involved in food handling and preparation must strictly adhere to the seven (7) key concepts of cleanliness about food handling and preparation, which are: (a) Be clean; (b) Observe personnel health and personal hygiene; (c) Buy good quality foods; (d) Store foods properly; (e) Cook food thoroughly at safe temperatures; (f) Use safe water; and (g) Observe proper servicing of food. Food preparation compliance with safety standards. Moreover, there is no proper training and certification for food handlers, no available handwashing facilities in canteens, no safe water supply in canteens, no compliance to cleanliness principles in food

handling, the solid waste management in kitchens and canteens were not followed, and the food handlers are no health certificates. The reason for this poor observance is that School B have no available canteen for students because they closed it due to incompliance. The school is now targeting meeting the standards of the school canteen operation.

School A achieved a Three Star School rating, indicating that the school facilities and systems meet national standards. These ratings highlight the importance of implementing and maintaining proper sanitation practices in educational institutions to ensure the well-being of students, staff, and public health standards. It is crucial to address the shortcomings identified in School B and maintain the high standards exhibited by School A.

To summarize, the results showed a highly observed sanitation practice in the schools, showing an average of 3.38.

Table 2. Basic Requirements and Standards on Sanitation Practice of School A and B.

PARTICULARS	SCHOOL A		SCHOOL B		OVERALL	
	WM	I	WM	I	WM	I
Functional toilets with handwashing	4.00	EO	3.00	MO	3.50	EO
Proper septage and wastewater disposal.	4.00	EO	3.00	MO	3.50	EO
Daily cleaning and maintenance.	4.00	EO	4.00	EO	4.00	EO
Segregated waste disposal	4.00	EO	3.00	MO	3.50	EO
Mosquito breeding ground elimination.	4.00	EO	4.00	EO	4.00	EO
Soap and water supply near toilets.	4.00	EO	4.00	EO	4.00	EO
Clear handwashing instructions and posters.	4.00	EO	4.00	EO	4.00	EO
Strict septage and wastewater disposal.	4.00	EO	4.00	EO	4.00	EO
Enforcement of garbage burning prohibition.	4.00	EO	3.00	MO	3.50	EO
Food preparation compliance with safety standards.	4.00	EO	2.00	LO	3.00	MO
Proper training and certification for food handlers.	4.00	EO	2.00	LO	3.00	MO
Sanitary permits for school canteens.	4.00	EO	2.00	LO	3.00	MO
Handwashing facilities in canteens.	4.00	EO	2.00	LO	3.00	MO
Safe water supply in canteens.	4.00	EO	2.00	LO	3.00	MO
Adherence to cleanliness principles in food handling.	4.00	EO	2.00	LO	3.00	MO
Handwashing for food handlers.	4.00	EO	2.00	LO	3.00	MO

Solid waste management in kitchens and canteens.	4.00	EO	2.00	LO	3.00	MO
Health certificates for food handlers.	4.00	EO	2.00	LO	3.00	MO
GM	**4.00**	**EO**	**2.77**	**MO**	**3.38**	**EO**

Note. School A refers to Nato Elementary School, and School B refers to Vinagre Elementary School. WM denotes Weighted Mean, and GM denotes Grand Mean. The rating scale and corresponding interpretations are as follows: 3.26–4.00, Excellently Observed (EO); 2.51–3.25, Moderately Observed (MO); 1.76–2.50, Less Observed (LO); and 1.00–1.75, Not Observed (NO).

c. Basic Requirements and Standards of Hygiene

The School A exhibited a rating range of 3 to 4, with a mean average of 3.61. At the same time, the School B displayed a range of 2 to 4, with a mean average of 3.07. School A received Moderately Available and Excellently Available ratings, whereas School B received ratings of Less, Moderately, and Highly Available. Overall, it gained a 3.34 mean, interpreted as highly available.

It is indicated that School B received a poorly available of four (4) with the following factors: Information on the proper disposal of sanitary pads and the cleaning of reusable pads is available to female students; Toilets have first deworming sessions; mass deworming conducted by health personnel or adequate space for girls to manage menstruation, including space to rest and recover from menstrual pain and its resting space for menstrual management; Information advocacy materials on reproductive health and hygiene education for boys and girls that integrate essential menstruation-related components shall be provided, and reproductive health education materials provided to teachers.

Table 3. Basic Requirements and Standards on Hygiene Practice of School A and B.

PARTICULARS	SCHOOL A		SCHOOL B		OVERALL	
	WM	I	WM	I	WM	I
Supervised group handwashing and tooth brushing program.	4.00	HA	4.00	HA	4.00	HA
Individual handwashing promotion.	4.00	HA	4.00	HA	4.00	HA
Adequate facilities with regular maintenance.	4.00	HA	3.00	MA	3.50	HA
Supply availability in strategic areas.	3.00	MA	3.00	MA	3.00	MA
Continuous handwashing reminders.	4.00	HA	4.00	HA	4.00	HA
Ensured water access for activities.	4.00	HA	4.00	HA	4.00	HA
Functional menstrual hygiene mechanisms.	4.00	HA	2.00	PA	3.00	MA
Sanitary pad availability and disposal ensured.	3.00	MA	3.00	MA	3.00	MA

Information provided on proper disposal and cleaning.	3.00	MA	2.00	PA	2.50	PA
Secured and private toilets with adequate space.	4.00	HA	3.00	MA	3.50	HA
Resting space is provided for menstrual management.	3.00	MA	2.00	PA	2.50	PA
Formulated privacy and security regulations.	3.00	MA	4.00	HA	3.50	HA
Reproductive health education materials are provided to teachers.	4.00	HA	2.00	LA	3.00	MA
GM	**3.61**	**HA**	**3.07**	**HA**	**3.34**	**HA**

Note. School A refers to Nato Elementary School, and School B refers to Vinagre Elementary School. WM denotes Weighted Mean, and GM denotes Grand Mean. The rating scale and corresponding interpretations are as follows: 3.26–4.00, Highly Available (HA); 2.51–3.25, Moderately Available (MA); 1.76–2.50, Less Available (LA); and 1.00–1.75, Not Available (NA).

In the overall assessment, Schools A and B achieved a 3.34 mean, interpreted as Highly Available. However, School B shows areas requiring improvement and development, particularly regarding proper disposal methods, menstrual space provision for girls, and the availability of information materials for hygiene education.

Ensuring proper hygiene practices in both schools is necessary for an excellent rating. Addressing School B's identified deficiencies will enhance hygiene standards and foster a healthy learning environment. Collaborative efforts between stakeholders are essential to implement effective improvement strategies and maintain high hygiene standards across educational institutions.

Basic Requirements and Standards on Health Education Program

The fundamental requirements of the WASH Program, which is the Health Education Program of School A and School B. These requirements include a. Capacity building for WinS management, b. Providing students with access to hygiene knowledge, c. They are integrating WinS concepts into the curriculum, and d and providing information materials to stakeholders.

As a result of adhering to the standards of the WASH Program, School A received an excellent rating, with a grand mean of 4.00, and School B received a Moderately Adhere (MA) to the basic requirement and standard on health with an average mean of 3.25. The overall result illustrates a 3.62 mean, interpreted as highly adhered.

Besides, the Health Education Program (WINS Program of DepEd) faced challenges in adherence in some elementary schools in the Philippines due to various factors. The lack of complete facilities and insufficient resources hinder the optimal implementation of health programs in schools, and an adequate budget must be allocated for the program implementation (Yenne, Kusumawati, 2022).

By promoting knowledge about hygiene to students, teachers, and stakeholders, Health Education can help make schools safer while ensuring compliance with the WINS Program.

Table 4. Basic Requirements and Standards on Health Education Practice of School A and B.

PARTICULARS	SCHOOL A		SCHOOL B		OVERALL	
	WM	I	WM	I	WM	I
Capacity building for WinS management.	4.00	EA	3.00	EA	3.50	EA
Students access hygiene knowledge.	4.00	EA	3.00	MA	3.50	EA
Win's concepts are integrated into the curriculum.	4.00	EA	4.00	EA	4.00	EA
Information materials were provided to stakeholders.	4.00	EA	3.00	MA	3.50	EA
GM	**4.00**	**EA**	**3.25**	**MA**	**3.62**	**EA**

Note. School A refers to Nato Elementary School, and School B refers to Vinagre Elementary School. WM denotes Weighted Mean, and GM denotes Grand Mean. The rating scale and corresponding interpretations are as follows: 3.26–4.00, Excellently Adhered (EA); 2.51–3.25, Moderately Adhered (MA); 1.76–2.50, Less Adhered (LA); and 1.00–1.75, Not Adhered (NA).

Basic Requirements and Standards on Deworming Practice.

Table 5 shows the results of the Wins Program's standard Deworming Practice in School A and B. The findings indicate that both schools achieved an outstanding rating with an average score of 3.74, interpreted as highly adhered. The elementary schools met the following basic standards: semi-annual deworming of all students, as per the Department of Health (DOH) recommendations based on the current prevalence index survey; obtaining parental or guardian's consent for semi-annual deworming during enrolment or the first few days of school before the teachers in the presence of health personnel; deworming done on a full stomach to reduce adverse events; any adverse events handled based on the guidelines on Deworming, Drug Administration, and Management of Adverse Event, and Deworming, in compliance with DOH directive; and coordination with other partners encouraged in the program's implementation.

During the pandemic, compliance with deworming was only 85%, per the KII with the teacher. The school cannot adequately monitor students since they conduct regular days in a modular scheme.

Table 5. Basic Requirements and Standards on Deworming Practice of School A and B.

PARTICULARS	SCHOOL A		SCHOOL B		OVERALL	
	WM	I	WM	I	WM	I
Semi-annual deworming per DOH recommendations.	4.00	HA	4.00	HA	4.00	HA
Parental consent was obtained during enrollment.	3.00	MA	3.00	HA	3.00	MA

Deworming is conducted by health personnel or teachers.	4.00	HA	4.00	HA	4.00	HA
Deworming on a full stomach to reduce adverse events.	4.00	HA	4.00	HA	4.00	HA
Adverse event management per DOH guidelines.	4.00	HA	4.00	HA	4.00	HA
Coordination with partners is encouraged.	4.00	HA	3.00	MA	3.50	HA
GM	**3.83**	**HA**	**3.66**	**HA**	**3.74**	**HA**

Note. School A refers to Nato Elementary School, and School B refers to Vinagre Elementary School. WM denotes Weighted Mean, and GM denotes Grand Mean. The rating scale and corresponding interpretations are as follows: 3.26–4.00, Highly Adhered (HA); 2.51–3.25, Moderately Adhered (MA); 1.76–2.50, Less Adhered (LA); and 1.00–1.75, Not Adhered (NA).

WASH Program of Schools A and B.

The following schools have been selected to be assessed in the conduct of this study: Nato Elementary School in the Municipality of Sagñay and Vinagre Elementary School in the Municipality of Tigaon. The following factors have been considered in assessing these facilities, as shown in the table: a. water, b. sanitation, c. hygiene, d. health education, and e. deworming.

The Nato Elementary School (A) is highly compliant with a grand mean of 3.88, whereas Vinagre Elementary School (B) is moderately compliant with a grand mean of 3.19. School A has presented the manuals of different programs under WASH to the researcher. Water supply and sanitation were both in excellent condition. A lot of faucets or water stations are provided inside the school premises. The school is clean and orderly. Solid waste in school is effectively managed through composting, and a rainwater collection system is available, too. There is a comfort room available in every classroom. Apart from these, there are comfort rooms intended for parents and visitors. Hand and foot wash areas for students are sufficient, with ten units per station.

Health education and deworming are also conducted regularly in schools. High compliance with the DepEd WASH program in elementary schools is crucial for several reasons: The study in the Philippines showed that students in intervention schools had higher rates of handwashing after toilet use and with soap, leading to improved hygiene behaviors. The WASH program benefits students and extends to household members, as self-reported handwashing at critical times was higher among households of students from intervention schools, indicating a broader positive impact. Globally, WASH interventions in schools aim to reduce diarrhea incidence, improve hygiene behaviors, enhance school performance, and influence the practices of parents and siblings through students acting as agents of change. Therefore, high compliance with the DepEd WASH program is essential for improving hygiene practices, reducing absenteeism, and promoting overall health outcomes in schools and communities (Hassan et al., 2019).

Table 6. WASH Program of School A and B.

PARTICULARS	SCHOOL A		SCHOOL B		OVERALL	
	WM	**I**	**WM**	**I**	**WM**	**I**
Water	4.00	HC	3.20	MC	3.60	HC
Sanitation	4.00	HC	2.77	MC	3.38	HC
Hygiene	3.61	HC	3.07	MC	3.34	HC
Health Education	4.00	HC	3.25	MC	3.62	HC
Deworming	3.83	HC	3.66	HC	3.51	HC
GM	**3.88**	**HC**	**3.19**	**MC**	**3.53**	**HC**

Note. School A refers to Nato Elementary School, and School B refers to Vinagre Elementary School. WM denotes Weighted Mean, and GM denotes Grand Mean. The mean scale and corresponding interpretations are as follows: 3.26–4.00, Highly Compliant (HC); 2.51–3.25, Moderately Compliant (MC); 1.76–2.50, Less Compliant (LC); and 1.00–1.75, Not Compliant (NC).

On the other hand, there needs to be more water in facility B. There is no water supply during the inspection of the common CR for visitors. Rainwater is collected using plastic drums, and there is no visible compose pit for solid wastes. There are no manuals available or proper documentation of WASH programs for learners. Deworming and health programs are also observed and posted on bulletin boards. Schools may face water shortages without proper rainwater catchment systems, leading to unhygienic conditions and potential health risks for students. Limited comfort rooms can exacerbate this issue by challenging students to maintain personal hygiene, increasing health risks (Hassan et al., 2019).
Without rainwater catchments, schools may struggle to provide clean water for drinking and sanitation purposes, leading to potential hygiene issues like the spread of diseases and lack of handwashing facilities. Limited comfort rooms can result in inadequate sanitation facilities, increasing the risk of waterborne diseases and impacting the overall health of students and staff due to poor hygiene practices.

B. Issues and Concerns faced by schools A and B.

The researchers highlighted school-related challenges and concerns. This is to analyze the key challenges of schools in the following areas: no good documentation on deworming, less than 85% of children dewormed, limited compost pits available/damaged compost pits, and a limited budget on WASH Program. This limits effective waste management and undermines efforts to combat parasite illnesses among students.
Comprehensive documentation is consistently absent from deworming records. The analysis shows that fewer than 85% of students receive deworming medication. Inspection reveals a paucity of usable compost pits, with instances of damage or limits, as well as a limited WASH budget.
These challenges impede efficient waste management and jeopardize efforts to combat parasite illnesses among students. Insufficient paperwork, low deworming rates, and limited composting facilities present considerable obstacles. This situation can lead to untreated parasitic infections and impede sustainable waste management practices. Existing literature underscores the criticality of comprehensive deworming programs and adequate waste management infrastructure in institutional settings. Proper documentation is fundamental for monitoring and evaluating deworming initiatives, while adequate composting facilities contribute to environmental sustainability and public health.

The school faces several critical challenges affecting its students' and staff's health and well-being. These challenges encompass various hygiene, sanitation, and health education aspects, ultimately impacting the learning environment.

The issues identified include Insufficient water supply in certain comfort rooms, Poor maintenance of comfort rooms, handwashing areas, and compost pits, Limited number of comfort rooms, absence of rainwater catchment systems, Limited handwashing facilities, Non-functional toilets, Improper septage and wastewater disposal, Lack of water quality monitoring, Absence of sanitary permits for school canteens, Non-adherence to cleanliness principles in food handling, Lack of health certificates for food handlers, Limited information provided on proper disposal and cleaning procedures, Inadequate reproductive health education materials for teachers, Absence of resting spaces for menstrual management.

These issues collectively pose severe risks to the health and safety of everyone in the school community. Insufficient water and poor sanitation increase the likelihood of waterborne illnesses. Inadequate waste management worsens health hazards. The absence of permits and certifications suggests a lack of oversight, potentially leading to more health risks. These challenges do not just affect physical health; they also disrupt the educational experience. Poor hygiene and sanitation lead to more absences, reduced productivity, and hindered learning. The absence of proper reproductive health education and menstrual management facilities may particularly affect girls, perpetuate stigma and impact their overall well-being. Existing studies support these findings, emphasizing the critical role of hygiene, sanitation, and health education in schools.

C. Recommended Action Plan for Addressing Challenges in the Schools.

The issues, problems, and concerns were gathered along with water, sanitation, hygiene, health education, and deworming programs through assessment in the selected schools. The following are the recommended action plan to address challenges in the elementary school WASH Program.

The recommended action plan for addressing the challenge of insufficient water supply in some school comfort rooms focuses on improving water supply and quality monitoring. This strategy entails upgrading the existing infrastructure to ensure a consistent and adequate water flow while implementing regular quality checks to maintain hygiene standards. By prioritizing these improvements, the school can enhance its students' and staff's overall health and comfort, fostering a more conducive learning environment.

To address the problem of no water quality monitoring in schools by implementing a strategy involves installing the necessary equipment to regularly test and assess the water quality, ensuring it meets safety standards. By adopting this approach, the school can safeguard the health of its students and staff, providing a safer and more reliable water supply.

To manage the sanitation challenges in the school's WASH program involves completion and repair activities. Key steps include constructing and repairing compost pits to ensure compliance with RA 9003 and installing rainwater harvester systems to support water conservation efforts. Additional measures involve expanding and maintaining comfort rooms and handwashing areas to enhance hygiene facilities, alongside ensuring toilets are functional. The plan also emphasizes obtaining sanitary permits for school canteens and securing health certificates for food handlers to meet health and safety standards. The school aims to create a cleaner, healthier environment for its students and staff by implementing these strategies.

To handle the inadequate space for girls to manage menstruation, the school's WASH program focuses on building dedicated spaces for hygiene promotion. This strategy involves constructing private areas where girls can rest and recover from menstrual pain comfortably and with dignity. These spaces will have necessary facilities such as sanitary supplies, seating, and proper waste disposal options. By implementing this initiative, the school aims to support the health and well-being of its female students, promoting a more inclusive and supportive educational environment.

The suggested action plan for addressing the health education challenges in the school's WASH program is a comprehensive campaign on health education. This strategy includes educating students and staff on proper septage and wastewater disposal practices to improve sanitation. The campaign will also distribute detailed information on proper disposal and cleaning techniques and provide teachers with reproductive health education materials, emphasizing adherence to cleanliness principles in food handling to ensure safe and hygienic food practices. Additionally, the campaign will advocate for creating resting spaces for menstrual management and disseminate vital information on effective disposal and cleaning methods.

The advised plan for addressing the lack of proper documentation on the deworming program in the school's WASH initiative involves implementing a solid documentation system. This strategy focuses on accurately recording the deworming status of each student to ensure that at least 85% of students undergo deworming. Proper documentation will include detailed records of deworming schedules, doses administered, and follow-up actions. By maintaining comprehensive and accurate records, the school can monitor the effectiveness of the deworming program and identify areas needing improvement. This approach aims to enhance the overall health and well-being of the student population through consistent and well-documented deworming practices.

To facilitate the limited budget for the WASH program in elementary schools involves strategic fund allocation and seeking additional funding from external agencies. This strategy includes prioritizing essential WASH initiatives within the existing budget to maximize impact. Additionally, the school will actively request funds from governmental bodies, non-profit organizations, and private sector partners to supplement their resources. By diversifying funding sources, the school aims to secure the necessary financial support to enhance its WASH facilities and programs. This approach will ensure the sustainability and effectiveness of the WASH program, promoting better hygiene and health for students.

Table 7. Recommended Action Plan for Addressing Challenges in the Schools.

Issues, Problems, and Concerns in WASH Program	**Management Strategies**	**Activities**	**Time Table/ Budgetary Requirements/ Fund Source/Responsible Agency**
Water -Insufficient Water Supply in some comfort rooms	Improvement of Water Supply and Quality Monitoring Implementation	-Install additional water storage tanks to ensure a consistent water supply in all comfort rooms. -Implement rainwater harvesting systems to supplement the main water supply, especially during	The responsible agency shall determine the timetable,

-No water quality monitoring.	of Water Quality Monitoring	peak usage or water shortages. -Upgrade existing plumbing systems. Install pressure-boosting systems to maintain adequate water pressure in all areas, ensuring all comfort rooms receive sufficient water supply. -Conduct regular water quality tests to monitor parameters such as pH, turbidity, microbial contamination, and chemical pollutants. -Engage accredited laboratories or third-party agencies to carry out independent water quality assessments to ensure unbiased results. -Conduct awareness campaigns	budgetary requirements, and source of funds.
Sanitation RA 9003 compliance: -Limited Compost pit available/Damage compost Pit -No rainwater catchment -Limited Comfort room -Poor maintenance of comfort rooms, hand washing area, and compost pit -Limited handwashing area -Not functional toilets -Not available sanitary permits for school canteens. -No health certificates for food handlers	Completion and repair activities	-Repair damaged compost pits and construct additional pits as needed to comply with RA 9003. -Install rainwater catchment systems to provide an additional water source for sanitation purposes. -Build additional comfort rooms -Construct additional handwashing stations -Repair all non-functional toilets immediately to ensure they are operational. -Ensure all school canteens obtain the necessary sanitary permits. -Ensure all food handlers obtain health certificates to comply with health regulations.	The responsible agency shall determine the timetable, budgetary requirements, and source of funds.
Hygiene Promotion -Inadequate space for girls to manage menstruation, including space to rest and	Building Spaces for Hygiene Promotion	-Establish and equip dedicated areas for girls to manage menstruation, including private spaces to rest and recover from	The responsible agency shall determine the timetable,

recover from menstrual pain		menstrual pain. -Ensure these spaces are stocked with essential supplies such as sanitary pads, pain relievers, and clean water for washing. -Provide educational materials and support on menstrual health management to promote awareness and reduce stigma.	budgetary requirements, and source of funds.
Health Education -Improper septage and wastewater disposal -Limited Information was provided on proper disposal and cleaning. -Limited reproductive health education materials are provided to teachers. -In observance of Adherence to cleanliness principles in food handling. -No available Resting space is provided for menstrual management -No available information was provided on proper disposal and cleaning.	Campaign on Health Education Program	-Install proper septage and wastewater disposal systems to ensure sanitary conditions. -Conduct educational campaigns on proper disposal and cleaning practices. -Supply teachers with comprehensive reproductive health education materials -Implement training programs for food handlers on adherence to cleanliness principles in food handling -Create dedicated resting spaces for menstrual management, ensuring privacy and comfort for girls. -Provide adequate informational resources on proper disposal.	The responsible agency shall determine the timetable, budgetary requirements, and source of funds.
Deworming -No proper documentation on deworming (Below 85% of students undergo deworming)	Implement proper documentation on the Deworming program.	-Strengthen the record-keeping system to document deworming activities and track student participation.	The responsible agency shall determine the timetable, budgetary requirements, and source of funds.
Other: Limited Budget on WASH	Fund Allocation	-Prioritize WASH programs in budget allocation to ensure essential activities and infrastructure are adequately funded. -Seek additional funding from external sources such as grants, NGOs, and private sector part-	The responsible agency shall determine the timetable, budgetary requirements, and source of funds.

		nerships.	

Conclusion

Based on the findings it concludes the following:

The study evaluated selected elementary schools in Camarines Sur, examining factors such as accessibility, safety, water management, health, and sanitation. Using a purposive sampling approach, a convergent parallel mixed-method design was employed, collecting qualitative data through interviews and observations and quantitative data through structured checklists based on DepEd's WASH (Water, Sanitation, and Hygiene) program policies. Both data strands were analyzed separately and later integrated to provide a comprehensive assessment of the schools' WASH practices. The assessment revealed that School A achieved an excellent rating in water management practices with a score of 4.00. At the same time, School B had a moderately observed rating of 3.20, primarily due to the absence of a rainwater catchment system. Regarding sanitation, School A received an excellent rating, whereas School B was rated moderately, needing improvement in several indicators. The hygiene standards assessment showed both schools as highly available, with School A performing slightly better than School B, which required enhancements in disposal methods and menstrual space for girls.

The WASH Program on Health Education program concluded that School A was excelling and School B adhered moderately to the standards. Despite the challenges, both schools averaged a 3.74 score, indicating a high adherence to the WASH program standards. However, the pandemic posed additional challenges, especially in monitoring students' health due to the modular learning system, affecting the deworming compliance rate, which stood at 85%. Overall, the study highlights the importance of complete facilities and practices in schools for effective WASH program implementation.

Recommendations

The result was used as a basis for creating the following recommendations:

1. The agency responsible for the school's WASH program may continue to maintain the observance of basic requirements and standards on water.
2. The school will be able to maintain excellent results in the sanitation practices of the elementary school.
3. The Basic Requirements and Standards of Hygiene Practice may remain available in their school.
4. The health education practice of elementary schools may continue to be adhered to excellently.
5. The school may increase monitoring and compliance with the deworming practice in elementary schools.
6. The school may upgrade sanitation facilities, install rainwater catchments, enhance hygiene education campaigns, Improve Menstrual Hygiene Facilities, and mobilize Community and Parental Engagement.
7. The institution may adhere to/adopt the recommended action to address problems encountered in the school facility on the WASH Program.

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