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PRIORITIZING HEALTH-RELATED REQUIREMENTS FOR SAFE RETURN TO SCHOOLS AND OFFICES Part 2: INFRASTRUCTURE

Potable water, toilets, handwashing facilities and clinics in schools are considered essential health-related structures. They aid in ensuring proper hygiene is implemented and sustained for all learners and school personnel.

However, in the Philippines, not all schools have access to potable water and handwashing facilities with regular supply of hygiene kits and soaps. Based on the data analysis made by the GIZ and UNICEF, there are still about 24% of schools nationwide that have no access to these types of facilities, while 76% which have still have remaining requirements based on its school population, thus exposing the school populace to the spread of virus and other diseases.

Only 28% of all public schools have clinics, and the perennial problem of non-functioning toilets is always on top of the list.

The existence of corona virus decease (COVID-19), not only in the Philippines but through out the world, had opened our eyes to the realization of the importance of water and sanitation facilities specially to our schools. Equally important is the provision of school clinic for the regular checking and evaluation of the health conditions of the learners and other school personnel and provision of immediate appropriate response to their specific needs.

1. Priority Health-related Infrastructure Requirements

The Office of the Undersecretary for Administration (OUA) and the Education Facilities Division (EFD) have identified the priority health-related school facilities to be as follows, in accordance to priority:

- 1. Water System with Source of Potable Water
- 2. Toilets (sanitation system)





Office of the Undersecretary for Administration (OUA)

[Administrative Service (AS), Information and Communications Technology Service (ICTS), Disaster Risk Reduction and Management Service (BLSS), Bureau of Learner Support Services (BLSS), Baguio Teachers' Camp (BTC), Central Security & Safety Office (CSSO)]

Department of Education, Central Office, Meralco Avenue, Pasig City Rm 519, Mabini Bldg; Mobile: +639260320762; Tel: +6326337203, +6326376207 Email: usec.admin@deped.gov.ph; Facebook/Twitter @depedtayo

- 3. Hand Washing Facilities
- 4. School clinics

A. Water System with Source of Potable Water

In terms of provision of potable water system, based on latest Enhanced Basic Education Information System (eBEIS) data, **a total of 3,861 schools have no access to potable water.** They need to be connected to an existing water system being used by the community or an independent water source like deep wells dedicated for the school.

Additional option for the provision of water source is the Atmospheric water generation (AWG) or air-to-water technology which is the process of converting water vapor in the air (humidity) to water. The AWGs replicate this natural process of condensation by simulating the dew point, which allows it to make water continuously, even in low humidity conditions. This is an alternative to areas where the water table is so deep or where nearby water sources are absent.

Table 1. Design Options and Costing for Water Source

	Design Options					
Cost Component	Option 1	Option 2	Option 3	Option 4	Option 5	
	Solar-powered Deep Well with Submersible Water Pump	Water Source at Higher Elevation than the School	Manual Hand Water Pump	Rainwater Collector	Solar-powered Air Water System	
Unit Cost	1,958,226	312,614	270,000	140,253	2,000,000	
Average Unit Cost	P 936,219.00					

Using the average cost of P 937,000.00 the total requirement for the provision of water source for all the 3,861 schools is P 3,614,741,559.

Repairing and rehabilitating existing water systems of 43,289 schools to ensure that potable water is available and that all handwashing facilities and toilets will have water will have an average amount P16.2 Billion, considering an estimated amount of **P374,500 per school is needed for the repair and rehabilitation.**

B. Provision of Toilet Facilities

Another important health facilities requirement in every school are the toilet facilities. Based on WinS monitoring data SY 2018-2019, there are about **72.9% of all schools have at least one (1) functional toilet, while 55.5% are within the acceptable ratio of one (1) toilet bowl for every 50 students**.

Schools with existing toilets (N= 47,023)

	With	Without	No Data
With at least one existing functional toilet	34,271 (72.9%)	734 (1.6%)	12,018 (25.6%)
With functional toilets that are secure	29,976 (63.8%)	5,028 (10.7%)	12,019 (25.6%)
With functional toilets that has lighting	27,668 (58.8%)	7,337 (15.6%)	12,018 (25.6%)
With functional toilets that has adequate ventilation	27,797 (59.1%)	7,208 (15.3%)	12,018 (25.6%)
With gender-segregated toilets	19,868 (42.3%)	15,137 (32.2%)	12,018 (25.6%)
With toilets for people with limited mobility	9,641 (20.5%)	25,364 (53.9%)	12,018 (25.6%)

Schools with Adequate Student to Functional Toilet Ratio (SFTR)

SFTR	No.	%
<50	26,182	55.5
51-100	5,398	11.4
>100	2,691	5.7
No Toilet	734	1.6
No Data	12,018	25.5
Total	47,203	100.0

Note: SFTR means Student -Functional Toilet Ratio and <50 SFTR meets the adequate criteria. WinS Follow-up Monitoring SY 2018/2019

The 2019 National School Building Inventory shows that for each specified use of toilet according to gender, the ratio of toilet bowl to student is 1:85 for female and 1:105 for male, which is still beyond the acceptable standard of 1:50 for female

and 1:100 for male. As per analysis of the remaining requirements will total to about 56,769 toilet seats to meet the standards.

For a four-seater toilet facility, repair and rehabilitation amounts to about P213,200 while new construction is P533,000.

DepEd will be needing **P23,326,158,700 to repair and rehabilitate 437,639 existing toilets** to make them clean and functional, while about **P7,564,469,250 is needed for the construction of 56,769 toilets.**

C. Group Hand Washing Facilities

Based on the latest eBEIS data, a total of **3,861 schools has no existing group handwashing facilities**. Given the current enrolment data of these schools and a standard ratio of one (1) group handwashing facilities for every 100 students, a total of **7,704 group handwashing facilities are needed to be constructed** in these schools.

Based on various models and options for the construction of groups handwashing facilities, an estimate of **P 135,750.00** is needed for 10 faucets with water tank.

About P1.045 Billion is needed to build 7,704 hand washing facilities in 3,861 schools.

Of the 43,289 schools with existing handwashing facilities, **98,963 facilities** need to be repaired and rehabilitated. With an estimate of **P50,000 repair cost**, the total repair funds needed is **P4,948,150,000**.

And to enable these schools to meet the DepEd standard of 1 group handwashing facilities for every 100 students, about **156,850 handwashing** facilities more are needed to be constructed. This would amount to another P 15.7 billion.

D. School Clinics

Of the 47,013 schools nationwide, only 28% have clinics. That's about 13,081 public schools.

A standard school clinic would have the size of a normal classroom and cost an estimated **P2.5 million each to build**. If a school has an existing classroom could be **converted into a clinic**, **the cost would be around P450,000.00**.

Earlier, it was conveyed to Congress that the amount needed will vary between a minimum of P15.27 billion if only conversion would be undertaken, up to a high of P84.83 billion if new constructions will be undertaken. Based on the field validation of engineers, a total of **20,359 new construction of clinics**

required while 13,573 others are for conversion of existing classrooms or ancillary facilities in the case of schools without buildable space.

Thus, to ensure that there will be **one clinic for every school this will need a total budgetary requirement of Php 57 billion** (P50,897,500,000.00 for new construction and P6,107,850,000.00 for conversion).

Repair of existing clinics would amount to P2,943,225,000 if we allocate P225,000 per classroom for repair and renovation.

These amounts pertain only to physical facilities. Equipment, supplies and materials, medicines and personnel services are excluded in these computation.

2. Prioritization of Funding Allocations

To summarize, the following are the proposal for the provision of health facilities:

FIRST PRIORITY: P80,420,907,596.00

1. Allocation of Funds for Construction of Health-related Facilities

Category	Physical Targets	Unit	Total Required Budget
Water System	3,861	School Site	3,614,741,559
Hand Washing facilities	7,704 (full requirements of 3,861 schools)	Group Hand Washing facility of 10 Faucets	1,045,818,000
Toilets	28,385 (50% only)	Toilet Seat	3,782,301,250
Clinics	5,090 (25% only)	Clinic	12,725,000.000
Total			21,167,860,809

2. Allocation of Funds for Repair and Rehabilitation of Existing Health-Related Facilities constructed prior to 2017

Category	Physical Targets	Unit	Total Required Budget
Water Systems	10,823 (25% only)	School Site	4,053,213,500
Handwashing Facility	98,963	Group Handwashing Facility	4,948,150,000
Toilets (repair-Rehab)	27,352 (25% only)	Toilet Seat	5,831,446,400
Clinic (repair/rehab)	13,081	Clinic	2,107,760,000
Total			17,776,034,900

3. Allocation of Funds for the Construction and/or Repair and Rehabilitation of Health-related Facilities to meet 50% DepEd Standards in Schools where these facilities are absent.

Category	Physical Targets	Unit	Total Required Budget (Php)
Water Systems (repair-rehab)	10,823 (25% only)	School Site	10,132,698,237
Handwashing Facility (repair-rehab)	78,425 (50% only)	Group Handwashing Facility	7,842,500,000
Toilets (repair-rehab)	27,352 (25% only)	Toilet Seat	5,831,446,400
Toilets (construction)	14,193 (25% only)	Toilet Seat	1,891,217,250
Clinics (construction)	5,090 (25% only)	Clinic	12,725,000.000
Clinics (conversion)	6,787 (50% only)	Clinic	3,054,150,000
Total			41,477,011,887

SECOND PRIORITY: P53,515,714,809.00

4. Allocation of Funds for the Construction of Health-related Facilities to meet 100% DepEd Standards in all schools

Category	Physical Targets	Unit	Total Required Budget
Water Systems	3,861	School Site	3,614,741,559
Handwashing Facility	78,425 (50% final)	Group Handwashing Facility	7,842,500,000
Toilets (repair-Rehab)	54,705 (50% final)	Toilet Seat	11,663,106,000
Toilets (construction)	14,193 (25% final)	Toilet Seat	1,891,217,250
Clinics (construction)	10,180 (50% final)	Clinic	25,450,000.000
Clinics (conversion)	6,787 (50% final)	Clinic	3,054,150,000
Total			53,515,714,809

THIRD PRIORITY: P46,988,695,000.00

5. Allocation of Funds for the Construction of Health-related Facilities using International Standards

Category	Physical Targets	Unit	Total Required Budget (Php)
Construction of 100% of the Requirements for Group Handwashing Facility	657,389	Group Handwashing Facility	16,730,818,000
Construction of 100% of the remaining requirements for toilet facilities	56,769	Toilet Seats	30,257,877,000
Total	657,389		46,988,695,000

A total of about P180,925,317,405 or **P181 billion is needed to fund all health-related infrastructure requirements** to address potable water and water systems, toilets and sanitation, handwashing facilities, and clinics.

ALAIN DEL B. PASCUA
Undersecretary

* Based from Reports and Recommendations of EFD and BLSS-SHD



