Sustainable financing for WASH in School (WinS)

Professor Stefan Listl & **Dr. Rahul Nair,** *Faculty of Medical Science, Radboud University, Njimegen, the Netherlands*

Dr. Bella Monse, **Marvin Marquez, Ubo Pakes**, *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Fit for School Program*

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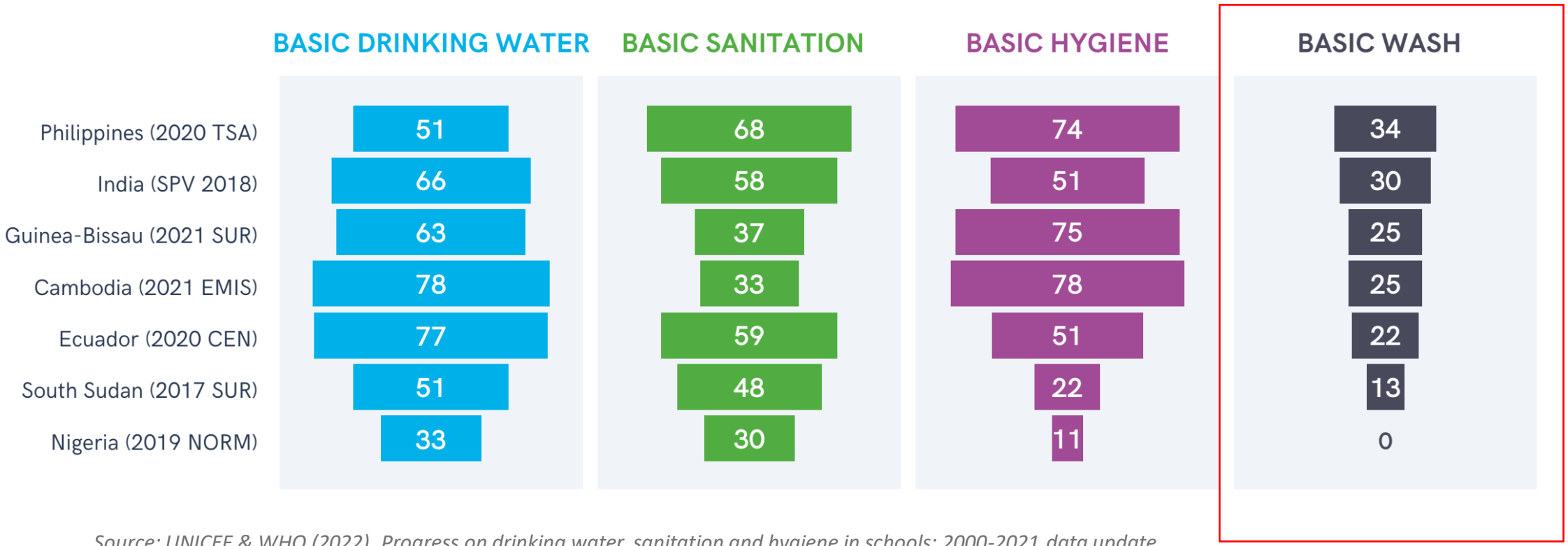
Towards the Sustainable Development Goals: Service ladders for WASH in schools monitored by the WHO/UNICEF Joint Monitoring Programme (JMP)

SERVICE LEVEL	DRINKING WATER	SANITATION	HYGIENE
BASIC SERVICE	Drinking water from an improved source and water is available at the school at the time of the survey	Improved sanitation facilities at the school that are single-sex and usable (available, functional and private) at the time of the survey	Handwashing facilities with water and soap available at the school at the time of the survey
LIMITED SERVICE	Drinking water from an improved source but water is unavailable at the school at the time of the survey	Improved sanitation facilities at the school that are either not single-sex or not usable at the time of the survey	Handwashing facilities with water but no soap available at the school at the time of the survey
NO SERVICE	Drinking water from an unimproved source or no water source at the school	Unimproved sanitation facilities or no sanitation facilities at the school	No handwashing facilities or no water available at the school

Low percentage of schools reaching all three basic service levels



Source: UNICEF & WHO (2022). Progress on drinking water, sanitation and hygiene in schools: 2000-2021 data update

Sustainability at the core

- Access to basic WASH in schools services need to be sustainable.
- The term ‘sustainable’ encompasses
  - Regular, institutionalized monitoring of WinS at school level
  - Regular maintenance and repair of physical infrastructure
  - Consistent provision of necessary consumables (like soap, water, etc.)
  - School personnel’s time and effort in managing WASH in schools on a daily basis, specifically time of teachers and school heads
- Information on the needed resources and related costs is essential for the allocation of funds making the WASH services sustainable

How to calculate the costs for reaching WASH in schools basic service level?

Data sources, methods, and base of calculations

Cost categories considered

- One-time investment: infrastructure costs
- Annual recurring costs: operation & maintenance and related materials & supplies
- Annual recurring costs: Human resources: time for managing WASH-related tasks covered through salaries

Data sources

- WASH in School Monitoring data
- Cost data on toilet and handwashing facilities
- Consumables: suggested retail price of soaps, toilet supplies, sanitary pads; costs in the O&M app
- Cost of human resources dedicated to current WinS activities in schools from key informant interviews

Base for calculations and specific data required

Infrastructure cost	Operation & Maintenance cost	Human resources	Cost reaching the national standard 1:50 ratio for usable toilet/ handwashing facilities
No. of schools	No. of schools No. of students	Salary of teaching and non-teaching staff	No. of schools
No. of schools with water supply	Cost of water, soap, cleaning, sanitary pads & disinfection material (use of O&M App)	No. of school administrators No. of teachers No. of janitors/cleaning staff	No. of schools with usable toilets
No. of usable toilets per school	Average minor repair cost (e.g. spare parts, equipment)	Average time each category of staff spends on WinS activities	No. of schools with functional handwashing facilities (water outlet)
No. of toilets per school that need major repair			No. of students (consider shifts)
No. of functional handwashing facilities			

Infrastructure costs

Calculating the costs for closing the gaps between the existing infrastructure and basic service level for WASH needs school level data, usually available in the EMIS or WinS monitoring data and data on average cost for construction and repair:

JMP core indicators for basic WinS services	Infrastructure needed per school
Drinking water	Water supply infrastructure
Sanitation	At least two usable toilets (to comply with gender segregation)
Hygiene	At least one handwashing facility and water supply

Different scenarios in schools for calculating basic sanitation services

- A school needs two (2) usable toilets to reach the basic sanitation service - Prioritize repair over new construction.
- Costs for repair used where the toilets were non-functional, and new toilets were assigned for missing toilets until there were a total of two usable toilets.
- School-level data is essential

Categories of schools not reaching basic service level:

Toilets needed per school basis
2 newly constructed toilets
1 existing (but needed repairs) & 1 new constructed toilet
Need only one new constructed toilet
With 2 existing toilets but both need repairs
With 2 existing toilets but only one needs repairs

Model of simplified calculation for infrastructure gap

Infrastructure needed	Cost per to unit	No. of schools	Cost in USD
1 toilet repair	1000 $	41	41,000 $
2 toilet repairs	2000 $	233	466,000 $
1 new toilet (cubicle)	3000 $	1.269	3,807,000 $
1 new toilet + 1 repair	4000 $	55	220,000 $
2 new toilets	6000 $	813	4,878,000 $
No. of schools (repair or new construction of toilets)	‘	2.781	9,412,000 $
1 functional handwashing facility		3.222	780,000 $

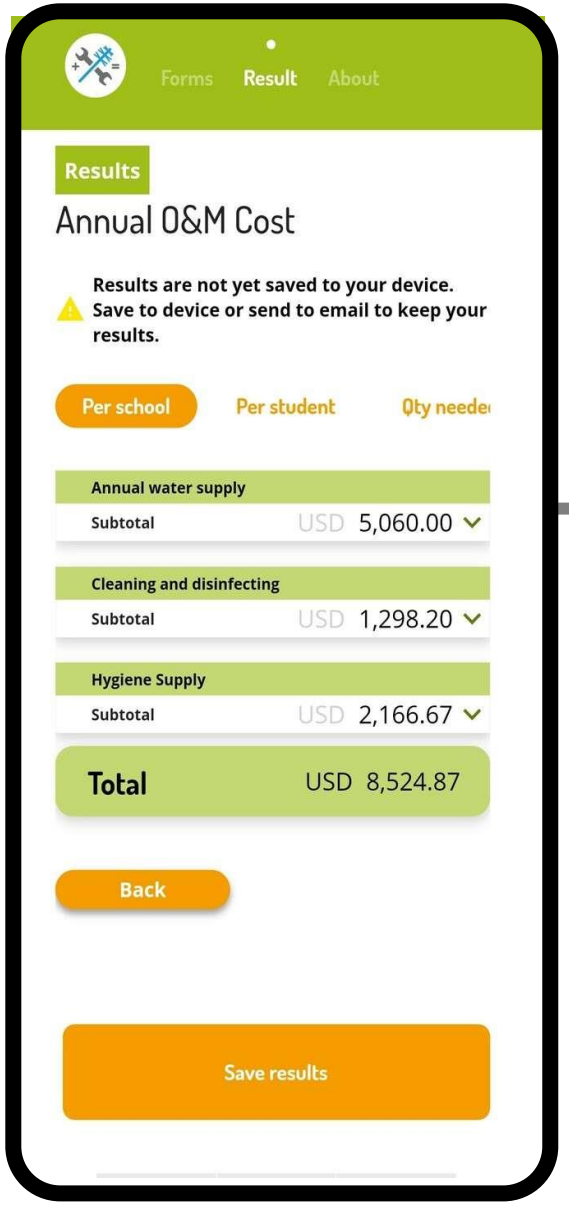
Operation & Maintenance costs

- Includes annual costs of consumable materials needed by the schools to meet conditions to effectively run the basic services for WASH in the schools.
- Budget need is based on # of school, # of toilets, # of students to be earmarked in existing budget lines for operational expenses

JMP core indicators for basic WinS services	Operation & Maintenance costs
Drinking water	Annual cost for water supply (and water treatment)
Sanitation	Water for flushing and cleaning, materials and supply for regular cleaning and disinfection, tools for simple repair, locks or knobs to address privacy
Hygiene	Regular supply of soap and monthly water supply

Operation & Maintenance – calculate the cost

Example calculation



Categories based on cost per student per year

- Drinking water (bulk of cost for O&M)
- Cleaning and disinfection material and supply
- Hygiene supply

Purified water from water refilling stations
0.05 USD/L

Piped water (Tested potable or filtered)
0.12 USD/m^3

Available for Download !!!

O&M Calculate the Cost

Google Play Store

bit.ly/OMappandroid

Apple App Store

bit.ly/OMappios

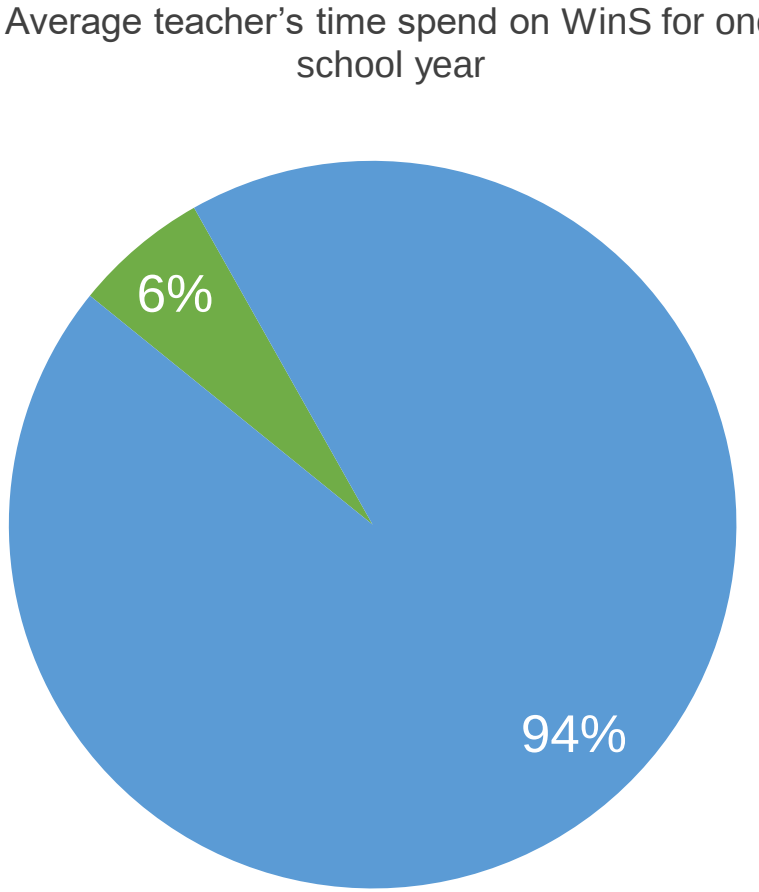
Factsheet: bit.ly/OMfactsheet

Model calculation for recurring cost for material and supplies for O&M for the targeted national standard

Consumables needed (per year)	Unit cost per student/ year	Cost for the entire school population per year
Soap (500 g / student) *(5g soap 5 x daily x 200 school days = 500 g)*	3.30 $ / 500 g soap	27 Mio X 3.3 $ = 90 Mio $
Cleaning and disinfection *(Rough estimation of cost for cleaning and disinfection of sanitation facilities, if the national standard of 1 toilet for 50 students is considered)*	1.0 $	27 Mio x 1.0 $ = 27 Mio $

School personnel costs (teaching and non-teaching staff)

- Costs for the time of school staff for managing & implementing all WinS activities
- Costs for salaries are already covered within the budget of the Ministry of Education, but are not specifically earmarked for WASH in Schools
- According to expert interviews, teachers spend around 6% of their time on WinS activities (bulk of HR cost for WinS)
- Janitors, cleaning staff and WinS Coordinators spent significantly more time on WinS-related tasks



Model calculation for human resources (limiting on teaching staff) to manage WASH in schools

No. of school staff	No. of staff x average annual salary	HR cost on national level
No. of teachers (excluding WinS coordinator)	832,027 x 10,000 $	
No. of WinS coordinator (1 per 1 school)	44,815 x 10,000 $	
Cost of estimated time for managing WinS	**Annul WinS Cost /staff**	**Cost for HR for WinS**
6% of teachers time (during pandemic)	600 $	500,000,000 $
15% of WinS coordinators time (during pandemic)	1500 $	67,000,000 $
Total cost of HR of teaching staff to manage WinS on School level		**567,000,000 $**

Learnings for Infrastructure calculations

- **School-level data** of the current WinS status is needed to calculate the gap that needs to be closed to reaching basic service level for infrastructure
- When the **gap is known**, calculation of cost for closing the gap can be done
- Calculation of recommended toilet : student ratio and recommended handwashing facility: student ratio serves as reality check

Learnings

- For operation and maintenance bulk of cost is **provision of drinking water**
- cost for WinS **is time of teaching and non-teaching staff**, to manage WinS
- Only if **budget needs** for managing and implementing WinS are quantified, request for allocation can be done with **proper justification**

Learnings

- **Earmarking of teachers'** time for WinS to quantify investment covered by the Ministry of Education on WinS as
  - Teachers engagement and involvement is crucial for the success of WinS
  - Teachers time accounts for the bulk of cost
  - Teachers time needs to be acknowledged and quantified

Project team

- Radboud University Medical Center
  - Dr. Rahul Nair
  - Dr. Stefan Listl
- GIZ – Fit for School program
  - Dr. Bella Monse
  - Marvin Marquez
  - Ubo Pakes
  - Frederick Madrid
- Health Bureau
  - Dr. Habib Benzian
  - Nicole Stauf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