



SCOPING STUDY

Preparing for SDG reporting of WASH
in schools in East Asia and the Pacific

Scoping Study: Preparing for SDG reporting of WASH in schools in East Asia and the Pacific

© UNICEF and World Health Organization 2017

All rights reserved. Publications of the World Health Organization can be obtained from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel: +41 22 791 3264; fax: +41 22 791 4857; email: bookorders@who.int).

The World Health Organization and UNICEF welcome requests for permission to reproduce or translate their publications - whether for sale or for noncommercial distribution. Applications and enquiries should be addressed to WHO, Office of Publications, through the WHO web site (http://www.who.int/about/licensing/copyright_form/en/index.html) or to UNICEF, Division of Communication, 3 United Nations Plaza, New York 10017, USA (fax: +1 212 3037985; email: nyhqdoc.permit@unicef.org).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization or UNICEF concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization or UNICEF in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

The World Health Organization and UNICEF do not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

Photo credits: © UNICEF/UNI48741/Estey: A girl washes her hands at a UNICEF-provided water point at a new elementary school, built with UNICEF assistance, in the village of Neusok Teubaluy in the district of Aceh Besar.

Design and Layout: Nona Reuter



This study was funded by the Government of Australia Department of Foreign Affairs and Trade (DFAT)

Scoping Study

Preparing for SDG reporting of WASH in schools
in East Asia and the Pacific

Acknowledgements

The WHO/UNICEF Joint Monitoring Programme (JMP) would like to acknowledge the valuable contributions made by the following people who provided data and information throughout this scoping study: Kencho Namgyal, Raymond Pekiwape, and Jamie Peninsa from Papua New Guinea; Reza Hendrawan, Aidan Cronin, Siti Sofiah, and Satriyo Wibowo from Indonesia; and Chanthea Chaing, Santepheap Heng, Huot Chea, Sokhon Nuom, Sam Treglown, Pong Pitin, Yung Kunthearith, and Stina Heikkila from Cambodia.

Special thanks to Chander Badloe of the UNICEF East Asia and Pacific Regional Office (EAPRO) for leading these efforts.

The financial support of the Government of Australia Department of Foreign Affairs and Trade (DFAT) and the UNICEF East Asia and Pacific Regional Office (EAPRO) is gratefully acknowledged.

In addition, thanks are extended to the reviewers: Rob Bain, Tom Slaymaker, Arabella Hayter, and Rick Johnston from the JMP, in addition to the aforementioned contributors who reviewed their respective country case studies.

Special thanks is extended to Christie Chatterley for conducting the country missions, analysing the data and information and producing this report.

Contents

1.WASH in schools in the SDGs	1
1.1 Regional coverage data	1
1.2. Strengthening existing national monitoring systems	2
1.3. National capacities and interest to align with SDG criteria	3
1.4. Equity dimensions	3
1.5. National targets and standards	5
1.6. Way forward to monitor WASH in schools in the SDGs	5
2.Case Study – Monitoring WASH in Schools in Indonesia	7
2.1. National targets and standards	7
2.2. Existing national monitoring	8
2.3. Opportunities to align the existing monitoring systems with the SDGs	9
2.4. Bottlenecks and Opportunities	10
2.5. Recommended Next Steps	11
3.Case Study – Monitoring WASH in Schools in Papua New Guinea	12
3.1. National targets and standards	12
3.2. Existing national monitoring	12
3.3. Opportunities to align the existing monitoring systems with the SDGs	14
3.4. Bottlenecks and Opportunities	15
3.5. Recommended Next Steps	16
4.Case Study – Monitoring WASH in Schools in Cambodia	17
4.1. National targets and standards	17
4.2. Existing national monitoring	17
4.3. Opportunities to align the existing monitoring systems with the SDGs	18
4.4. Bottlenecks and Opportunities	19
4.5. Recommended Next Steps	20

1. WASH in schools in the SDGs

Water, sanitation and hygiene (WASH) in schools is captured in the Sustainable Development Goal (SDG) framework within three targets: two under Goal 6 and one under Goal 4. The terms “universal” and “for all” in WASH Targets 6.1 and 6.2 highlight the need for expanding WASH monitoring from the household level to non-household settings, such as schools and health care facilities. Target 4.a includes WASH in the school-setting, explicitly, with an indicator of the “proportion of schools with... (e) basic drinking water, (f) single-sex basic sanitation, and (g) basic handwashing facilities. “Basic” services have been defined by a global task team of WASH in schools (WinS) experts from various organizations and regions convened by the WHO/UNICEF Joint Monitoring Programme for Water and Sanitation (JMP).¹ The definitions include seven specific criteria (bold and italicized in *Table 1-1*).

To allow for progressive realization of the SDG criteria, the emerging JMP monitoring ladders in *Table 1-1* comprise three core levels: Basic Service (improved facilities that meet the SDG criteria for basic), Limited Service (improved facilities that do not meet the SDG criteria for basic), and No Service (unimproved or no facilities). The multi-level ladders enable countries at different stages of development to track and compare progress in reducing inequities. For countries where the Basic Service level is not aspirational, an Advanced Service level can be defined that is appropriate to the national context.

Table 1-1. Emerging JMP service ladders for monitoring WASH in schools in the SDGs

	Drinking water	Sanitation	Hygiene
Service Levels	Advanced Service <i>To be defined at national level</i>	Advanced Service <i>To be defined at national level</i>	Advanced Service <i>To be defined at national level</i>
	Basic service Drinking water from an improved source is available at the school	Basic service Improved facilities, which are single-sex and usable at the school	Basic service Handwashing facilities, which have water and soap available
	Limited service There is an improved source (piped water, protected well/spring, rainwater, bottled water), but water not available at time of survey	Limited service There are improved facilities (flush/pour flush, pit latrine with slab, composting toilet), but not sex-separated or not usable	Limited service Handwashing facilities with water, but no soap
	No service No water source or unimproved source (unprotected well/spring, tanker-truck, surface water source)	No service No toilets or latrines, or unimproved facilities (pit latrines without a slab or platform, hanging latrines, bucket latrines)	No service No handwashing facilities at the school or handwashing facilities with no water

To support harmonized data collection, the global task team has recommended core questions that link to the service ladders, including EMIS format questions.¹ Additional expanded questions which link to possible criteria for an “advanced” service level are recommended for countries with capacities and interest to monitor criteria beyond the “basic” service level.¹

1.1 Regional coverage data

In the 2015 UNICEF publication *Advancing WASH in Schools Monitoring*,² national coverage for water and sanitation in schools were reported for 19 and 20 countries, respectively, of the 27 countries in the East Asia and Pacific

¹ WHO/UNICEF (2015) Core questions and indicators for monitoring WASH in schools in the Sustainable Development Goals. (http://www.wssinfo.org/fileadmin/user_upload/user_upload/Core_questions_and_indicators_for_monitoring_WinS.pdf)

² UNICEF (2015) *Advancing WASH in Schools Monitoring* (working paper). New York, NY: United Nations Children’s Fund.

region³. Handwashing facility data were unavailable for the East Asia and Pacific countries in the global study. The reported coverage estimates for water and sanitation were based on linear regression of available data from multiple sources, including national Education Management Information System (EMIS) reports.

Whilst most countries could report national coverage of water and sanitation in schools, the study found that these data were not suitable for cross-country comparison or calculating accurate regional coverage estimates, since indicator definitions were either unknown or varied between data sources (*Table 1-2*). For example, coverage estimates in Kiribati (3 per cent) are based on a minimum quantity of water from an improved source per student, while in Cambodia, coverage (58 per cent) includes all schools where any water source exists, regardless of source type or quantity. The use of harmonized indicators, as defined in the SDGs, will not only support global and regional monitoring, but can also strengthen national systems by ensuring that critical aspects of WASH are adequately captured.

Table 1-2. Indicators are unclear or vary between countries for water and sanitation coverage in schools

	2013 Water	Indicator	2013 Sanitation	Indicator
Cambodia	58	existence	81	existence
China	99	improved	62	improved
Fiji	100	improved	95	improved
Indonesia	83	no clear definition	53	no clear definition
Kiribati	3	improved & sufficient quantity	4	single-sex & sufficient quantity
Lao PDR	54	no clear definition	47	no clear definition
Malaysia	100	no clear definition	100	no clear definition
Marshall Islands	20	no clear definition	10	no clear definition
Mongolia	48	no clear definition	52	no clear definition
Myanmar	57	no clear definition	23	no clear definition
Niue	100	no clear definition	100	no clear definition
Palau	100	no clear definition	100	no clear definition
Philippines	91	improved	53	no clear definition
Samoa	95	improved		
Solomon Islands	50	no clear definition	66	existence
Thailand	60	no clear definition	45	no clear definition
Timor-Leste	52	no clear definition	64	no clear definition
Tuvalu	65	no clear definition	60	no clear definition
Vanuatu	82	improved	69	no clear definition
Viet Nam	72	no clear definition	72	no clear definition
Weighted Average	92	varied	60	varied

1.2. Strengthening existing national monitoring systems

A review of national EMIS questionnaires from countries in the region suggests that not all the WASH data collected are analysed and reported. Some countries may have more detailed data in existing national databases, including information on the SDG criteria that were not included in the 2015 UNICEF global study (*Box 1-1*). This is promising news for the potential of national systems to report on the SDGs for WinS in the future. Comparison of national EMIS questionnaires with the SDG indicators for WinS suggests that some countries already have data on some of

Box 1-1. Reported versus collected data in Cambodia

Although national education reports and the public EMIS database in Cambodia only include the percentage of primary and secondary schools throughout the country with water and with toilets, the non-public EMIS database contains more detailed information from additional questions in the EMIS questionnaire that are available upon request. There are data on the percentage of schools with single-sex toilets, with toilets in use, with handwashing facilities and with soap. The database also allows for disaggregation, including urban / rural, pre-primary / primary / secondary, and by province to understand sub-national disparities. *For more details see Section 4.*

³ Based on UNICEF regional classification, East Asia and Pacific region includes Cambodia, China, Cook Islands, Fiji, Indonesia, DPR Korea, Kiribati, Lao PDR, Malaysia, Marshall Islands, Micronesia, Mongolia, Myanmar, Niue, Nauru, Palau, Papua New Guinea, Philippines, Samoa, Solomon Islands, Thailand, Timor-Leste, Tokelau, Tonga, Tuvalu, Vanuatu, and Viet Nam.

Table 1-3. The inclusion of SDG criteria in national EMIS questionnaires by country

Country	DRINKING WATER		SANITATION			HYGIENE	
	Improved	Available	Improved	Single-sex	Usable	Handwashing facilities	Soap & water
Cambodia	X			X	X	X	X
Cook Islands	X				X		
Fiji	X		X				
Indonesia	X	X		X	X	X	
Kiribati			X		X		
Lao PDR	X			X			
Palau							
PNG*	X	X	X		X	X	X
Samoa						X	
Solomon Is.	X	X	X		X		
Timor-Leste	X			X	X	X	
Tuvalu							
Vanuatu	X						
Total	9	3	4	4	7	5	2
Percentage	69%	23%	31%	31%	54%	38%	15%

*Includes a separate WASH module that was added to the last round of data collection and may be incorporated into the EMIS in the future

the SDG criteria. While none of the countries included in this review could report on all the SDG criteria as of the 2015/16 school year, over half ask about improved water sources in their EMIS questionnaire, and nearly half request information on the usability of the toilets. Roughly one-third ask about improved sanitation facilities, single-sex toilets, and handwashing facilities (*Table 1-3*). Water availability and the presence of soap and water for handwashing are rarely monitored.

For many countries, only minor adjustments would be needed to align existing national systems with the SDG criteria. For example, a number of EMIS questionnaires ask about girls' and boys' toilet, but do not have a category for common use toilets (used by boys and girls), which limits the ability to determine if the toilets are single-sex. Alignment with the SDG criteria would not only support SDG reporting, but also contribute to strengthening existing national monitoring systems to capture service quality beyond simply the presence or absence of infrastructure.

1.3. National capacities and interest to align with SDG criteria

There are seven core questions recommended for monitoring WinS in the SDGs that link to the seven SDG criteria (*Table 1-1*). Of the 13 EMIS questionnaires reviewed, an average of seven WASH-related questions are included, ranging from one to thirteen. Discussions with EMIS officers in Cambodia, Indonesia and Papua New Guinea suggest that the recommended global questions are nationally relevant and within existing capacities. For some systems, it may be more feasible in the short-term to modify the existing questions and responses, but not the structure of the EMIS questionnaire/database. For example, in Cambodia, the EMIS department felt it would be very feasible to modify questions within the existing structure, but layout changes would require additional resources, which may not be feasible before the next data collection cycle. *Box 1-2* provides an example of how minor changes to the EMIS questionnaire enable SDG reporting on WinS in Indonesia. For more details see section 2.

1.4. Equity dimensions

In line with the increased focus on equity in the SDGs and based on the wording of Target 4.a, WinS access should be "inclusive" and "for all." The SDG criteria of single-sex toilets aims to support the privacy needs of women and girls. Beyond specific criteria, tracking disaggregated data can support monitoring of equitable services. In most countries, national data could easily be disaggregated by (1) pre-primary / primary / secondary schools, (2) urban / rural (with cross-referencing to another database in countries where this classification is not collected in education questionnaires or surveys), and (3) sub-national regions, where the gap between the province with the highest and lowest coverage could be tracked over time to support decisions that address sub-national disparities. An example of sub-national disaggregation from Papua New Guinea is provided in *Figures 1-1* and *1-2*. For more details see section 3.

Box 1-2. Minor changes to the EMIS questionnaire in Indonesia would support SDG reporting

The existing WASH questions in the Indonesia EMIS support monitoring of five of the seven SDG criteria:

1. Water source: Available Not available
2. Water supply: Bottled Water/vendor Piped Water Pump well Well Springs River Rainwater Other
3. Water adequacy: Enough Not enough Not available
4. Number of toilet (put number): [] Boy [] Girl [] Disable [] Small kids (1st & 2nd grade)
5. Number of handwashing facilities: []
6. Toilet condition (asked to complete a facility sheet, indicating damage level (%) of various parts of the toilet building)

Minor changes, based on global questions and national priorities enable reporting on all SDG criteria:

1. Water supply: Bottled water/vendor Piped water Pump well Protected well Unprotected well Protected spring Unprotected spring River Rainwater Others
2. Is water from the main source currently available on premises? Yes No, not currently available or not on premises
3. What type of toilets/latrines are in use by students at the school? Flush/Pour-flush Pit with slab Hanging latrine Pit without slab None
4. Number of handwashing facilities: []
5. Are both soap and water currently available at handwashing facilities?: Yes No
6. Number of functional toilets: [] Boys [] Girls [] Mixed
7. Number of non-functional toilets: [] Boys [] Girls [] Mixed

Deviation from the globally recommended questions:

- Although toilet quantities are not needed for SDG monitoring, quantities are requested in the EMIS questions to support national monitoring against standards that require students per toilet ratios to be 60:1 for boys and 50:1 for girls.
- Given the capacities for national monitoring, additional questions were also added based on national priorities.

The modified EMIS questionnaire would support SDG monitoring using the following analysis guidance:

Levels	Water	Sanitation	Hygiene
Basic Service	Schools with Q1 = "Piped Water," "Pump well," "Protected Well/Spring," "Bottled water," or "Rainwater" AND Q2 = "Yes"	Schools with Q3 = "Flush/pour-flush" or "Pit with slab" AND Q6 = at least one for girls and at least one for boys	Schools with Q4 = at least one AND Q5 = "Yes"
Limited Service	Schools with Q1 = "Piped Water," "Pump well," "Protected Well/Spring," "Bottled water," or "Rainwater" AND Q2 = "No"	Schools with Q3 = "Flush/pour-flush" or "Pit with slab" AND Q6 = less than one for either girls or for boys	Schools with Q4 = at least one AND Q5 = "No" AND Q2 = "Yes"
No Service	Schools with Q1 = "Unprotected Well/Spring," or "River"	Schools with Q3 = "Pit without slab," "Hanging latrine," or "None"	Schools with Q4 = 0 OR Q2 = "No"

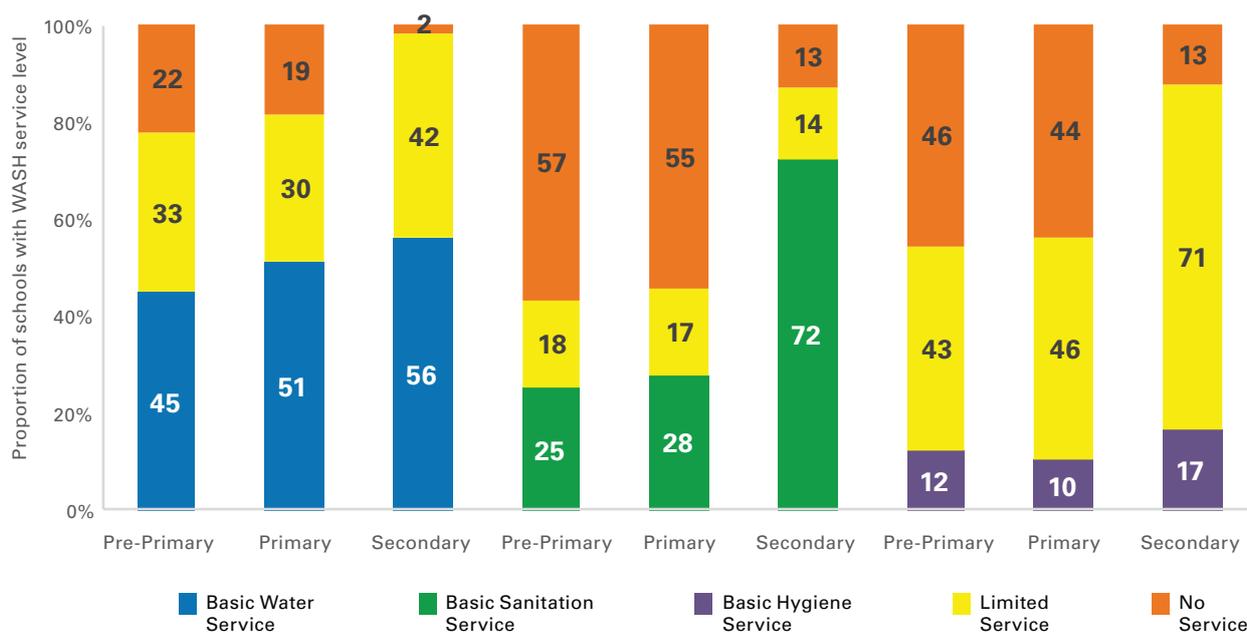


Figure 1-1. WASH in schools coverage disaggregated by school level (In PNG, pre-primary schools comprise schools that teach prep and grades 1-2, primary schools teach grades 3-8, and secondary schools teach grades 9-12)

WASH in schools coverage varies by region

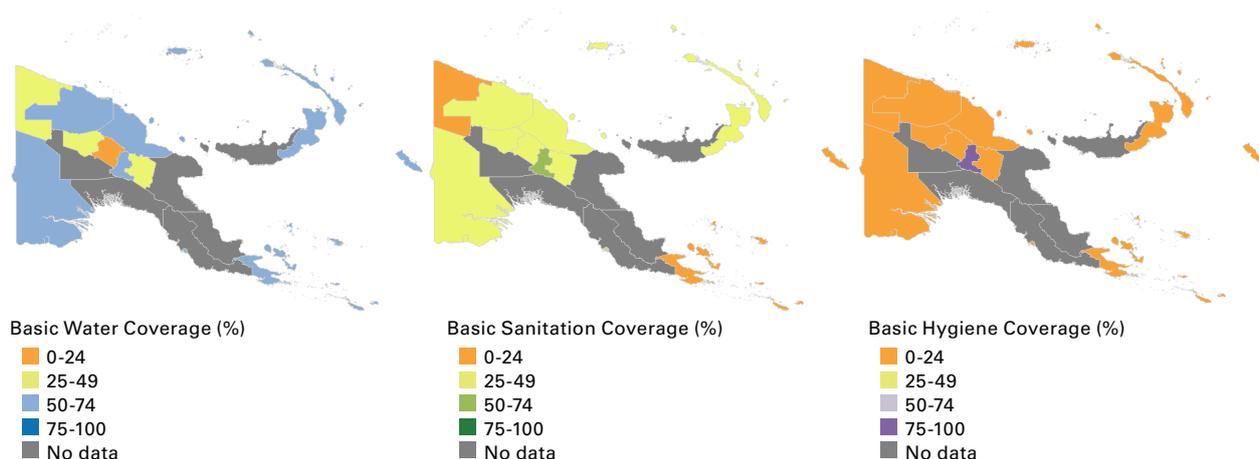


Figure 1-2. Water (left), sanitation (middle) and hygiene (right) coverage in schools disaggregated by province

During country consultations for this regional review, a Government staff in the National SDG Secretariat, hosted by the Ministry of Planning in Indonesia cautioned that some disaggregation can be sensitive and costly. For example, caution should be heeded before comparing district-level data as there could be negative political implications in highly decentralized countries where district-level government has significant autonomy. Appropriate disaggregation should therefore be determined at the country level.

1.5. National targets and standards

While national data will be needed for SDG reporting, these data may have limited potency without associated national standards and targets. National monitoring aligned with the SDGs, but not national standards and targets, will have limited sustainability and impact. Many countries in the region have national targets and standards related to WinS. Minor revisions would align them more closely with the SDG criteria and provide an opportunity to revisit national priorities for WinS (*Box 1-3*). See Sections 2-4 for more detailed country examples from Indonesia, Papua New Guinea and Cambodia.

1.6. Way forward to monitor WASH in schools in the SDGs

Bottlenecks and opportunities

In many countries, the national education census (i.e. EMIS) is a clear entry point for national WinS monitoring. Many national EMIS questionnaires already include WASH questions, and **minor changes to align with the SDG criteria would strengthen existing national systems** as well as enable reporting on Target 4.a. Bottlenecks for monitoring WinS include that collected data are not always analysed, reported or linked to monitoring of national targets.

Improved monitoring may have limited potency without associated updates to national standards and targets. National monitoring aligned with the SDGs, but not national standards and targets, is unlikely to effectively support national coverage improvements.

Additionally, data validation and feedback mechanisms are often needed. Based on country consultations, potential data validation mechanisms may include community surveys (e.g. the Commune Database in Cambodia) and school inspection reports (e.g. inspections associated with the school accreditation system in Indonesia). Small-scale validation studies could also help to evaluate the accuracy of the information provided through EMIS questionnaires, such as a study in Indonesia which found EMIS data to be generally in agreement with the situation observed during school visits.⁴ And, perhaps most crucially, timely dissemination of results to teachers and local government is needed to support informed action, whether through a government website or annual reports. In many cases, data are not easily accessible at the local level, or are from a number of years in the past and don't provide current information.

⁴ UNICEF Indonesia (2015) WASH in Schools in Eastern Indonesia – assessing quality and Sustainability in 3 Provinces via a student and facility survey, undertaken for UNICEF Indonesia Jakarta by TANGO International.

Box 1-3. Opportunities to align national targets and standards with the SDG criteria in Indonesia

The *National Medium Term Development Plan 2015-2019* has indicators and targets for school infrastructure based on the National Education Standard. There is no separate baseline available for WinS indicators, specifically, but the national education standard includes water, sanitation and handwashing as per the 2007 *National Education Minister Regulation*. The only SDG criteria missing from the standards are that soap and water are available for handwashing and that toilets are usable (accessible, functional and private). Pending national priorities, these additions and a specific target for WinS (separate from the grouped infrastructure indicator) may strengthen local monitoring and better inform decision-making.

National indicators and targets related to WASH in schools

No	Program/ National Priority Activities	Outputs	Indicators	Target				
				2015	2016	2017	2018	2019
C.2.2	Basic Education Program	Improvement of education quality	Percentage of primary schools with infrastructure that meets National Education Standard	15%	17%	24%	32%	40%

National education standards for WASH in schools

Element	Standard																				
Water	a. Clean water should be available b. Water should be available at the toilet with minimum 200 liter																				
Sanitation	a. A toilet is a room for defecating and urinating b. Minimum 1 toilet for 60 boys, c. Minimum 1 toilet for 50 girls, d. Minimum 1 toilet for teachers. e. Number of minimum toilets per school/madrasah is 3 units. f. Minimum area of 1 toilet room is 2 m ² g. Toilet must be walled, roofed, lockable, and easy to clean h. Water should be available in each toilet i. Toilets should be provided with the following tools/equipment <table border="1" data-bbox="399 1025 1181 1182"> <thead> <tr> <th>No</th> <th>Type</th> <th>Ratio</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1.1</td> <td>Water bucket</td> <td>1 unit/toilet</td> <td>For pour-flush toilet</td> </tr> <tr> <td>1.3</td> <td>Scoop</td> <td>1 unit/toilet</td> <td>Minimum of Volume is 200 liter of clean water</td> </tr> <tr> <td>1.4</td> <td>Hanger</td> <td>1 unit/toilet</td> <td></td> </tr> <tr> <td>1.5</td> <td>Waste bins</td> <td>1 unit/toilet</td> <td></td> </tr> </tbody> </table>	No	Type	Ratio	Description	1.1	Water bucket	1 unit/toilet	For pour-flush toilet	1.3	Scoop	1 unit/toilet	Minimum of Volume is 200 liter of clean water	1.4	Hanger	1 unit/toilet		1.5	Waste bins	1 unit/toilet	
No	Type	Ratio	Description																		
1.1	Water bucket	1 unit/toilet	For pour-flush toilet																		
1.3	Scoop	1 unit/toilet	Minimum of Volume is 200 liter of clean water																		
1.4	Hanger	1 unit/toilet																			
1.5	Waste bins	1 unit/toilet																			
Handwashing	a. 1 handwashing facility is available for each classroom b. 1 handwashing facility is available for teacher room c. 1 handwashing facility is available for UKS room																				

Recommendations to strengthen and harmonise national monitoring

1. Review the WinS SDG criteria for national relevance, adding criteria where needed (e.g. some countries may have the capacity and interest to track school facilities for Menstrual Hygiene Management, others may wish to ask about water availability throughout the year, in addition to the day of the survey)⁵;
2. Specify and modify relevant targets and standards⁶, as needed;
3. Update national EMIS questionnaires to reflect SDG criteria and national standards¹;
4. Establish an SDG baseline and provide timely results to school teachers and local, regional and national government; and
5. In the longer-term, data validation sources may be needed to check data quality (e.g. through community surveys, inspection reports or small-scale studies).

⁵ The globally recommended expanded questions may provide a starting point for tracking additional criteria beyond the minimum criteria that will be used to monitor "basic" service on a global level. (see the Annex of the document referenced in footnote 1)

⁶ For countries that have adopted the Three Star Approach, the Three Star criteria can be updated to reflect the SDG criteria, such that the Three Star criteria can remain the focus, while meeting the SDGs is a byproduct toward achieving two or three star status. For more information, see UNICEF/GIZ (2013) Field Guide: The Three-Star Approach to WASH in Schools.

2. Case Study – Monitoring WASH in Schools in Indonesia

Contributors: Reza Hendrawan & Aidan Cronin (UNICEF), and Siti Sofiah & Satriyo Wibowo (MoEC)

2.1. National targets and standards

The Government of Indonesia’s *National Medium Term Development Plan 2015-2019* has indicators and targets for school infrastructure based on the National Education Standard (**Table 2-1**). There is no separate baseline available for WinS indicators, specifically, but the national education standard includes water, sanitation and handwashing as per the 2007 *National Education Minister Regulation number 24* (**Table 2-2**). The national standards align closely with the SDGs for WinS; the only SDG criteria missing from the standards are that soap and water are available for handwashing and that toilets are usable (accessible, functional and private). Toilet usability is suggested in the requirement that toilets are “walled, roofed, lockable and easy to clean,” and the addition that toilets are unlocked and accessible to students when needed, are functional and provide privacy to the user, would align more directly with the SDG indicator definitions, pending consideration of local context and priorities. Providing a separate indicator with associated targets for WASH, specifically, rather than grouping with infrastructure in general, may also help to strengthen national monitoring and better inform decision-making.

Table 2-1. National indicators and targets related to WASH in schools in Indonesia

No	Program/ National Priority Activities	Outputs	Indicators	Target				
				2015	2016	2017	2018	2019
C.2.2	Basic Education Program	Improvement of education quality	Percentage of primary schools with infrastructure that meets National Education Standard	15%	17%	24%	32%	40%

Table 2-2. National standards of Ministry of Education for WASH in schools in Indonesia
National education standards for WASH in schools

Element	Standard																				
Water	<ul style="list-style-type: none"> a. Clean water should be available b. Water should be available at the toilet with minimum 200 liter (per day) 																				
Sanitation	<ul style="list-style-type: none"> a. A toilet is a room for defecating and urinating b. Minimum 1 toilet for 60 boys, c. Minimum 1 toilet for 50 girls, d. Minimum 1 toilet for teachers. e. Number of minimum toilets per school/madrasah is 3 units. f. Minimum area of 1 toilet room is 2 m² g. Toilet must be walled, roofed, lockable, and easy to clean h. Water should be available in each toilet i. Toilets should be provided with the following tools/equipment <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>No</th> <th>Type</th> <th>Ratio</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1.1</td> <td>Water bucket</td> <td>1 unit/toilet</td> <td>For pour-flush toilet</td> </tr> <tr> <td>1.3</td> <td>Scoop</td> <td>1 unit/toilet</td> <td>Minimum of Volume is 200 liter of clean water</td> </tr> <tr> <td>1.4</td> <td>Hanger</td> <td>1 unit/toilet</td> <td></td> </tr> <tr> <td>1.5</td> <td>Waste bins</td> <td>1 unit/toilet</td> <td></td> </tr> </tbody> </table>	No	Type	Ratio	Description	1.1	Water bucket	1 unit/toilet	For pour-flush toilet	1.3	Scoop	1 unit/toilet	Minimum of Volume is 200 liter of clean water	1.4	Hanger	1 unit/toilet		1.5	Waste bins	1 unit/toilet	
No	Type	Ratio	Description																		
1.1	Water bucket	1 unit/toilet	For pour-flush toilet																		
1.3	Scoop	1 unit/toilet	Minimum of Volume is 200 liter of clean water																		
1.4	Hanger	1 unit/toilet																			
1.5	Waste bins	1 unit/toilet																			
Handwashing	<ul style="list-style-type: none"> a. 1 handwashing facility is available for each classroom b. 1 handwashing facility is available for teacher room c. 1 handwashing facility is available for UKS room 																				

2.2. Existing national monitoring

National WinS coverage data were reported for Indonesia in the 2015 UNICEF publication *“Advancing WASH in Schools Monitoring”*. Coverage estimates, based on linear regression of five years of data from the UNICEF Country Office Annual Reports (COARs), suggested that 50% and 83% of primary schools had “adequate” water in 2008 and 2013, respectively, while 58% and 53% had “adequate” sanitation. It was unclear whether services were “improved”², available, single-sex, or usable, as the definition of “adequate” facilities was not provided in the COAR and there were changes in reporting on these indicators by the Ministry of Education. Handwashing facility coverage was not available for the 2015 global study.

While WASH is not included in annual national education reports, WASH data are collected in the national Education Management Information System (EMIS, called Dapodik in Indonesia) as part of the process to release the school operational grants (known as BOS). The coverage estimates in *Figures 2-1* and *2-2* are based on Dapodik data from 2015-16 for primary schools. Since the type of toilets are not solicited in the Dapodik, the rough estimate for “basic” sanitation in *Figure 2-1* refers to any toilet type, not only “improved” facilities. Secondary school data are collected, but were unavailable for this study. Private schools are included in the estimates, but not madrasas which are managed by the Ministry of Religious Affairs. However, there are plans to strengthen monitoring of madrasas along the lines of the Dapodik system.

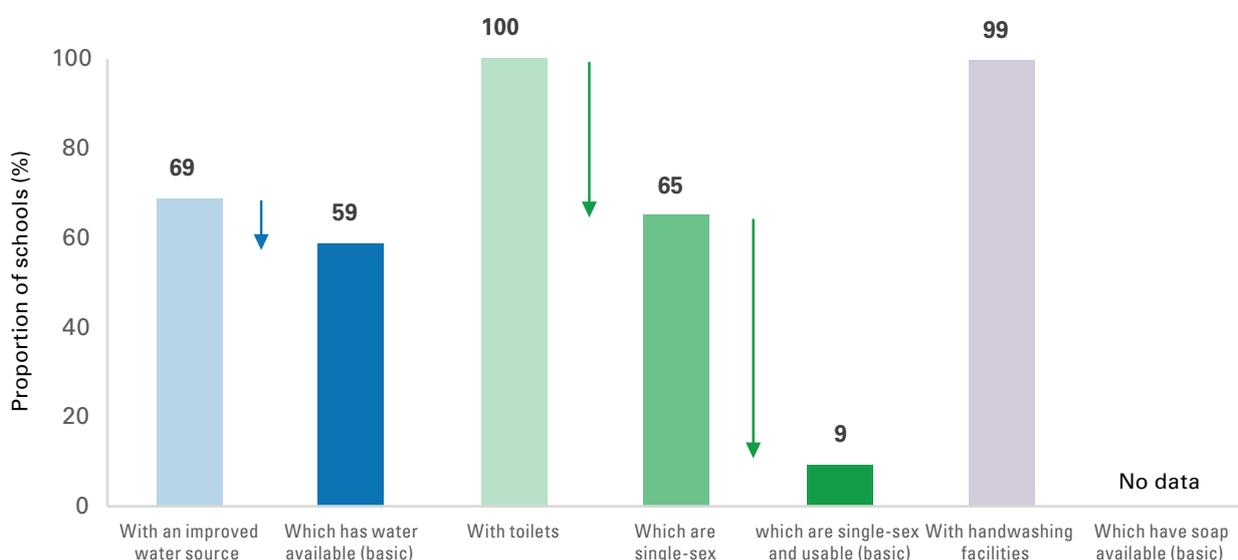


Figure 2-1. WASH in schools coverage in Indonesia considering the SDG criteria for “basic” service (note: “basic” sanitation coverage is a rough estimates as this refers to any toilet type) (source: analysis of 2015 Dapodik data)

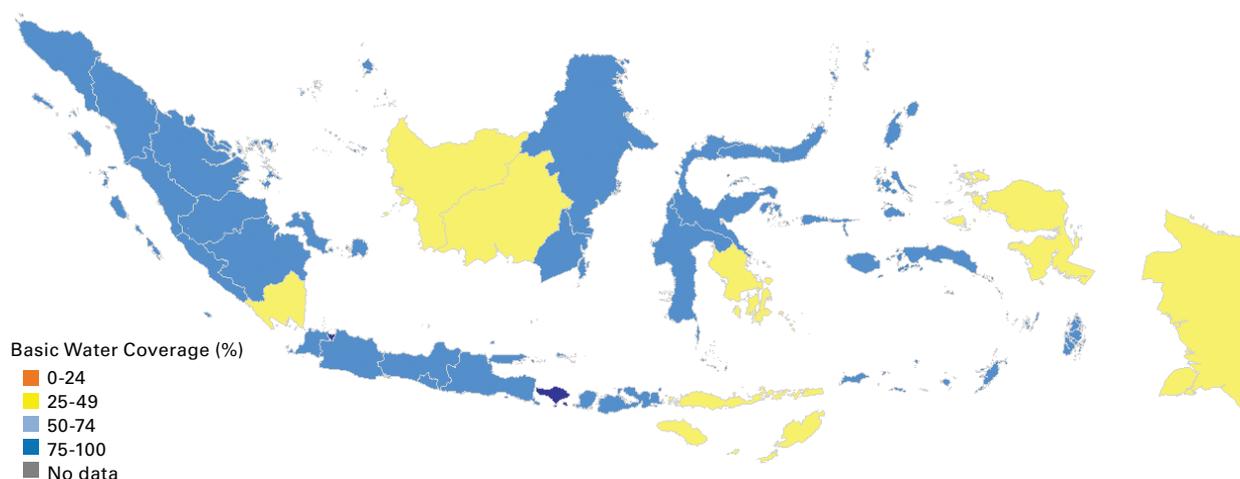


Figure 2-2. Basic water coverage in Indonesian primary schools by province (basic = water available from an improved source) (source: analysis of 2015 Dapodik data)

2.3. Opportunities to align the existing monitoring systems with the SDGs

The 2015-16 Dapodik questionnaire includes nine WASH questions (**Box 2-1**). These data are collected twice yearly from public and private primary and secondary schools, with a very high return rate since the return of the questionnaire is linked to the release of the school operational grant (BOS). Based on the questionnaire, Indonesia can report on five of the seven criteria for “basic” WASH service in schools; in fact all indicators could be tracked if the questionnaire included whether toilets are of an improved type or not and if soap and water are available for handwashing (**Table 2-3**). Some criteria could be further aligned: (1) the questionnaire asks about damage to toilets, but not specifically if they are usable (accessible, functional, and private); and (2) in the water source response categories, it is unclear if “well” and “spring” refer to protected or unprotected sources (or both), limiting the ability to accurately calculate the proportion of schools with an “improved” water source.

Box 2-1. Questions in the 2015/16 national education monitoring system (Dapodik)

1. Water source: Available Not available
2. Water supply: Bottled Water Piped Water Pump well Well Springs River
 Rainwater Other
3. Water adequacy: Enough Not enough Not available
4. Does School treat water: Yes No
5. Drinking water for students: Provided Not provided
6. The majority of student bring their water: Yes No
7. Number of toilets: [] Boy [] Girl [] Disabled [] Small kids (1st & 2nd grade)
8. Number of handwashing facilities: []
9. Facility sheet (includes toilets): asks for percent damage level to roof, ceiling, floor, etc.

Table 2-3. Existing monitoring system alignment with SDG criteria for WinS

WATER		SANITATION			HANDWASHING	
Improved	Available	Improved	Single-sex	Usable	Facilities	Soap & Water
Yes (limited)	Yes	No	Yes	Yes (limited)	Yes	No

Based on the globally recommended core questions and the local context and priorities, Dapodik successfully updated the questionnaire for 2016-17 to align with the SDGs and enable reporting on basic WinS. The updated questions are provided in **Box 2-2**. Although toilet quantities are not needed for SDG monitoring, quantities are desired for Ministry of Education and Culture standards that require students per toilet ratios to be 60:1 for boys and 50:1 for girls. The water source and toilet types were also localized based on what types are found in Indonesia and local terminology that would be clear to head teachers. Based on the capacities of the Dapodik department and national priorities, additional questions are included beyond those needed to estimate basic WinS coverage, such as disability accessible toilets and if the school undertakes water treatment. These additional questions (italicized questions 1-5 in **Box 2-2**), can be used to monitor a nationally defined “advanced” service level (beyond the “basic” service level specified by the SDGs), if desired.⁶ The updated questionnaire is a good starting point and further work will be undertaken to align the Dapodik more closely to the SDGs.

Box 2-2. 2016/17 Dapodik questionnaire modified based on global core questions and national priorities

1. Water adequacy: Enough Not enough Not available
2. Does the school treat water: Yes No
3. Drinking water for students: Provided Not provided
4. The majority of student bring their water: Yes No
5. Number of toilets accessible to those with disabilities: []
6. Water supply: Bottled water/vendor Piped water Pump well Protected well Unprotected well
 Protected spring Unprotected spring River Rainwater Others
7. Is water from the main source currently available on premises?
 Yes No, not currently available or not on premises
8. What type of toilets/latrines are in use by students at the school?
 Flush/Pour-flush Pit with slab Hanging latrine Pit without slab None
9. Number of handwashing facilities: []
10. Are both soap and water currently available at handwashing facilities?: Yes No
11. Number of functional toilets: [] Boys [] Girls [] Mixed
12. Number of non-functional toilets: [] Boys [] Girls [] Mixed

The modified EMIS questionnaire supports SDG monitoring using the analysis guidance in *Figure 2-3*, which maps to the JMP ladders for WinS. These service levels could be reported nationally (all pre-primary, primary and secondary schools), as well as disaggregated by urban/rural, pre-primary/primary/secondary or a comparison of the district or province with the lowest coverage and the district or province with highest coverage to identify sub-national disparities. Appropriate disaggregation will be considered by government.

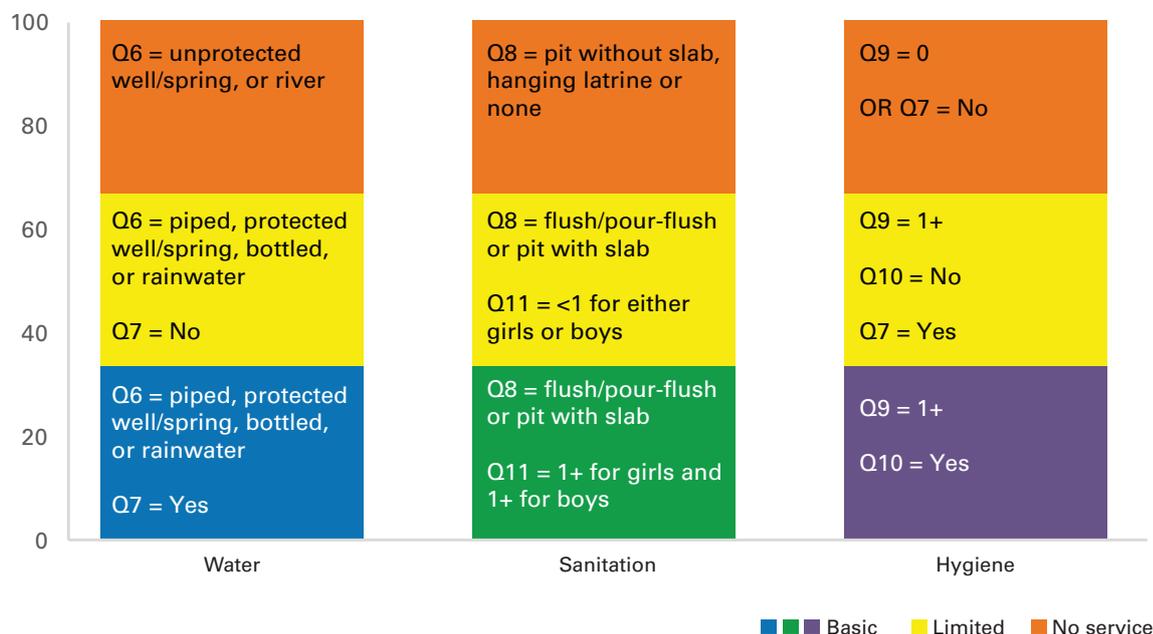


Figure 2-3. Analysis guidance for each JMP service level based on the 2016 Indonesia Dapodik questionnaire to enable SDG reporting for WinS

2.4. Bottlenecks and Opportunities

Bottlenecks

- The WASH data collected through the EMIS (Dapodik) are not always analysed or reported in national education reports; and
- Data are not shared back to schools and district government in a comprehensive manner, limiting results-based action. Given that the Indonesian government is highly decentralized with significant decision-making power at the level of district government, it is important that corrective feedback is given to schools for action but also to hold schools and administrators accountable. Data are currently available online but are two to three years old and are not aggregated at the district or province level to inform local government decisions.

Opportunities

- The national standards align closely with the SDG criteria for WinS with only soap availability and toilet usability not included;
- The Government of Indonesia is very supportive of SDG adoption in general and have a dedicated focal point system for SDG roll-out in national government;
- The updated EMIS questionnaire allows for SDG reporting on WinS and previous questionnaires include some aspects of reporting on the level of WASH service provision to facilitate historical data analysis;
- Independent UNICEF school survey work to ground truth the EMIS data showed that while some discrepancies existed, overall the quality of reporting was of an acceptable standard giving confidence in the data. Such verification assessments should be expanded in future; and
- The school accreditation system, which includes school visits by district government officials at least every three years, may provide an opportunity for further validation of EMIS data but this also must be linked to a corrective action recommendations report to school to ensure action is taken on identified issues.

2.5. Recommended Next Steps

The following actions are recommended to build on the identified opportunities and address bottlenecks:

1. Continue working to align the EMIS questionnaire more closely with the SDG criteria, including expanded MHM questions, where possible, based on local context;
2. Analyse incoming EMIS data for all schools (pre-primary, primary and secondary) to report a baseline on the SDGs for WinS in Indonesia, considering appropriate data disaggregation;
3. Analyse and report all WASH questions in the EMIS, including historical analysis where possible, to track progress over time;
4. Report feedback on WASH in schools to provinces, districts and schools, providing provincial or district level aggregation where possible to inform local decisions for corrective action (where unaddressed flagged actions may trigger investigation at a higher level);
5. Consider updating the National Education Standards to better align with the SDG criteria and current national priorities, adding soap availability and toilet usability;
6. Consider creating WASH-specific targets in the National Medium Term Development Plan (as opposed to a combined target for all infrastructure); and
7. Investigate the potential of school accreditation to serve as validation of EMIS data.

3. Case Study – Monitoring WASH in Schools in Papua New Guinea

Contributors: Kencho Namgyal (UNICEF) and Raymond Pekiwape & Jamie Peninsa (NDoE)

3.1. National targets and standards

The *National Water, Sanitation and Hygiene Policy 2015-2030* has targets which are in line with the SDGs for WinS. The WASH policy, which was endorsed in 2015, was spearheaded by the Department of National Planning and Monitoring (DNPM). A specific body, the Water, Sanitation and Hygiene Project Management Unit (WASH PMU) has been established within DNPM to coordinate, regulate and strengthen the enabling environment including service delivery mechanisms, and will transition into the National WASH authority in the future. The WASH PMU therefore provides a strong opportunity for ensuring national monitoring of WASH, including WASH in schools. In the national WASH policy, household targets for water and sanitation are set at 70% (below the SDG target of 100% by 2030) due to the very low current coverage figures, however targets for WASH in institutions are 100% by 2030, including that:

- 100% of educational institutions have access to a safe, convenient and sustainable water supply;
- 100% of educational institutions have access to safe, convenient and sustainable sanitation facilities;
- 100% of educational institutions have handwashing facilities with running water and soap.

Definitions of “safe, convenient and sustainable” facilities are needed and may provide an opportunity for further alignment with SDG indicators. Due to the recent development of these targets, there is limited monitoring of progress towards them. Monitoring WASH in institutions is included in the DNPM’s *Draft Medium Term Development Plan Monitoring and Evaluation Framework 2016-2022*. The framework specifies a target of 75% by 2017 for access to WASH in educational institutions.

Within the National Department of Education (NDoE), WASH targets are included in the *National Education Plan 2015-2019* (NEP), and reference global norms, which serve as the basis for the SDG criteria for WinS:

- 70% of schools have functional* water facilities by 2019 (*the indicator and data will be changed to align with global standards)
- There is a 70% increase on baseline for the number of functional* toilets by 2019 (*the indicator and data will be changed to align with global standards)
- The pupils per toilet ratio is 1:25 for girls and 1:40 for boys by 2019
- 70% of schools have handwashing facilities with running water and soap by 2019

WinS is also included in the DoE’s *National Quality School Standards Framework 2013-2020* including the following WASH indicators, which allude to some of the SDG criteria and provide a good starting point to further align with the SDGs as appropriate based on national priorities and interests:

- Adequate sanitation and access to safe water in the school environment
- The school has clean and adequate gravity water tanks
- Plumbing provides adequate drainage and water supply
- Toilets are in working order and are clean; school plumbing is maintained and works
- A process to maintain and clean toilets exists
- Proper handwashing procedures are taught

3.2. Existing national monitoring

National WinS coverage data were not reported for Papua New Guinea in the 2015 UNICEF publication *Advancing WASH in Schools Monitoring*. Based on UNICEF Country Office Annual Reports, national WinS data were unavailable. In response to this data gap, the UNICEF Country Office created a supplementary WASH module for submission together with the 2015 Annual School Census Form (questionnaire) to be part of the National Education

Management Information System (EMIS). The module questions were based on globally recommended questions in the WinS Monitoring Package and closely align with the SDG criteria allowing calculation of baseline estimates for “basic” WinS service. The only SDG criteria missing from the questionnaire is single-sex toilets and estimates of “basic” sanitation coverage were calculated by provisionally assuming that schools with girls’ toilets provide single-sex toilets.

At the time of this case study, approximately half the schools had returned the questionnaire. A preliminary analysis is presented in **Figures 3-1 through 3-3** and will be updated at the national level when the remaining questionnaires are returned. These estimates include pre-primary, primary and secondary schools. **Figure 3-1** highlights the importance of monitoring beyond the presence of infrastructure, to capture availability and usability, which are necessary for children’s use of facilities and associated anticipated health and educational benefits of WASH in schools. The results in **Figure 3-1** also map to the JMP service ladders. For example, 51% of schools have “basic” water service, while 30% (81 minus 51) have “limited” water service. The detailed data collected also provide an opportunity to understand sub-national disparities, including that schools which serve younger children tend to have lower WASH coverage (**Figure 3-2**) and there are large disparities between provinces in the country (**Figure 3-3**).

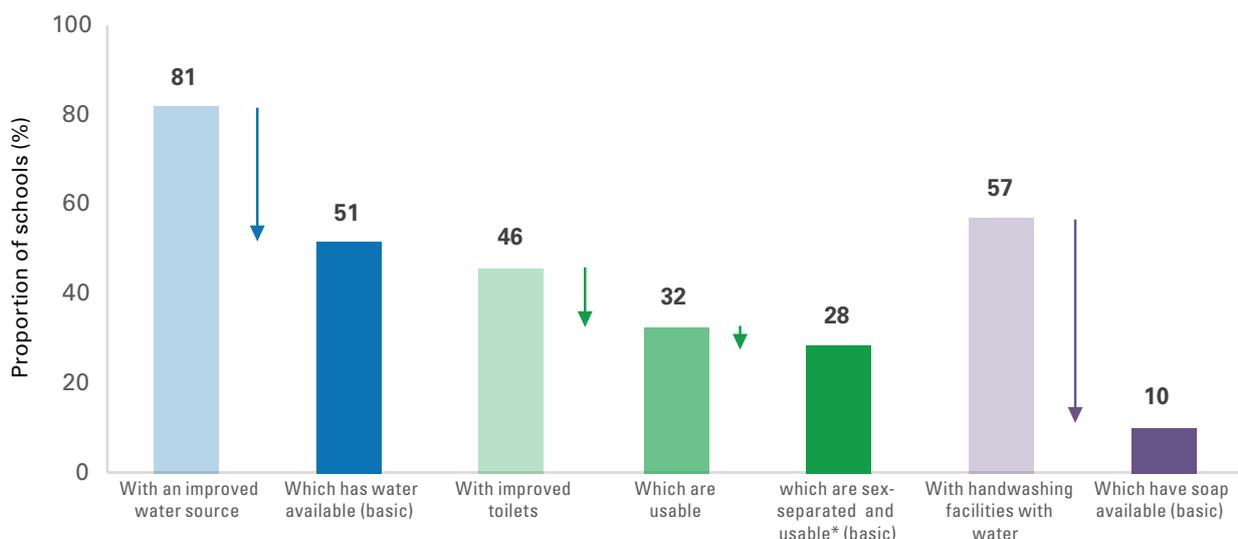


Figure 3-1. Preliminary WASH in schools coverage in Papua New Guinea considering the new SDG criteria for basic service

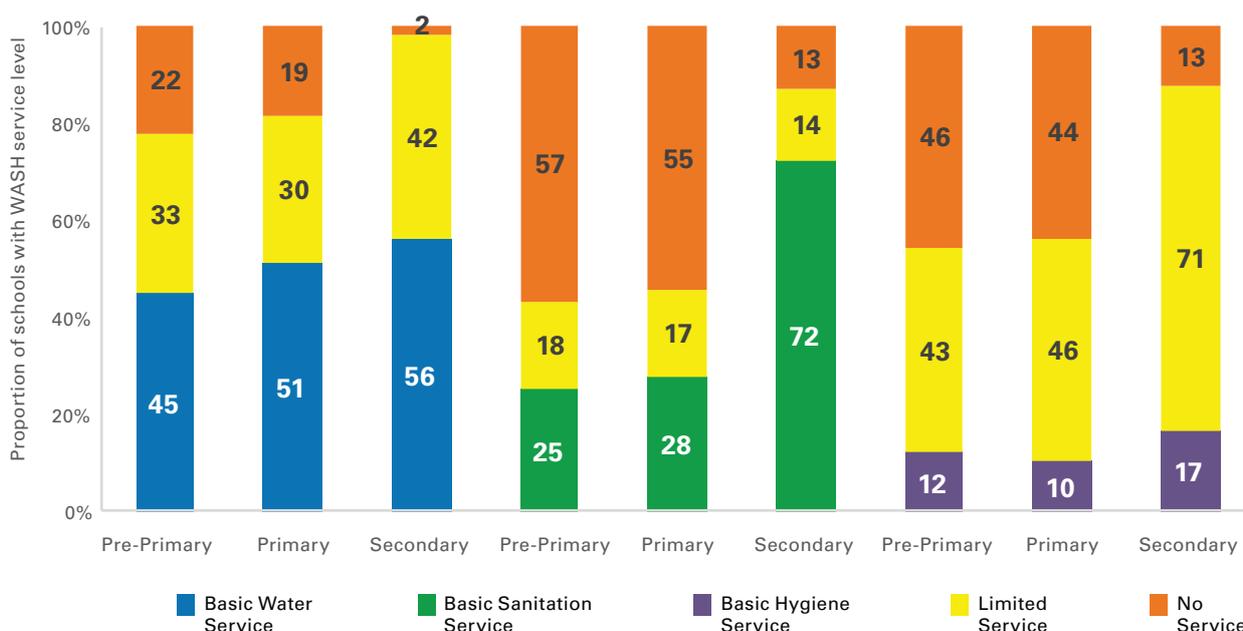


Figure 3-2. Preliminary WASH in schools coverage disaggregated by school level. (In PNG, pre-primary schools comprise schools that teach prep and grades 1-2, primary schools teach grades 3-8, and secondary schools teach grades 9-12)

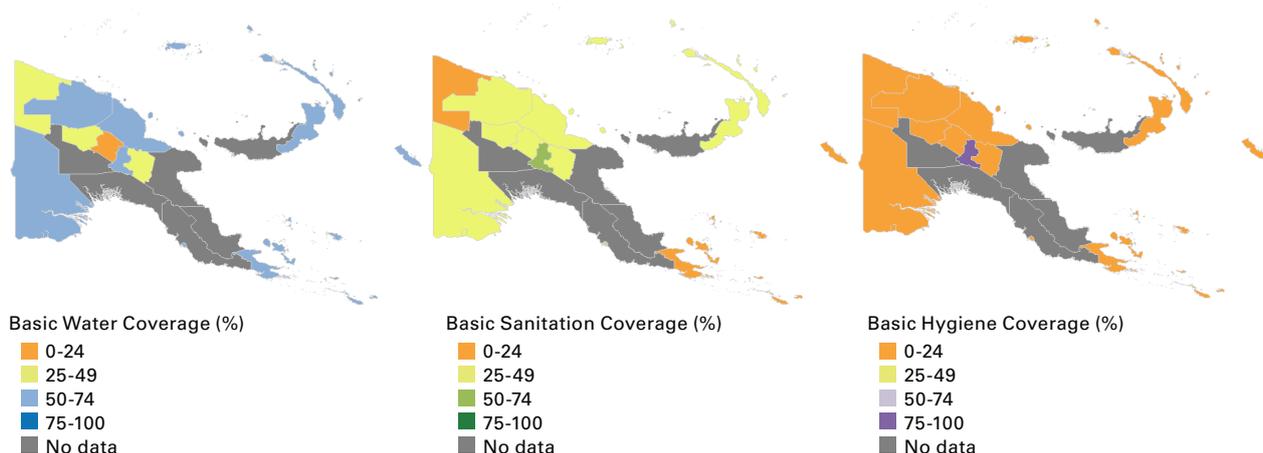


Figure 3-3. Preliminary water (left), sanitation (middle) and hygiene (right) coverage in schools disaggregated by province in Papua New Guinea

In addition to EMIS data, an assessment of WinS was conducted in 2015 in 159 primary schools in six provinces spanning all four regions of PNG (of 20 provinces nationwide). Findings align closely with the EMIS data, suggesting confidence in the EMIS results, including that:

- 80% of schools have an improved water source, the majority of which are rainwater collection (40%);
- 75% of schools have a functional water source;
- 91% of schools have toilets; 41% are improved;
- 80% of schools have sex-separated toilets; 35% of girls' toilets are lockable from the inside;
- 33% of schools have handwashing facilities (72% of which are running water); and
- 0.3% of schools had soap and 20% had water available at all handwashing facilities the day of the visit.

3.3. Opportunities to align the existing monitoring systems with the SDGs

The 2015-16 questionnaire (**Box 3-1**) allowed calculation of baseline estimates for "basic" WinS service. The only SDG criteria missing from the 2015-16 questionnaire is single-sex toilets (**Table 3-1**). While there is a question asking the number of girls' toilets and the number of boys' toilets, there is no option for common use or mixed toilets which would permit accurate calculation of schools with single-sex toilets. There is also an opportunity to strengthen monitoring by clarifying response options for toilet type, as the 2015-16 questionnaire does not differentiate between pit latrines with a slab and without a slab compromising the ability to identify schools with "improved" sanitation.

Box 3-1. Questions from the supplemental WASH questionnaire included in the 2015-16 EMIS

1. What is the school's main water source? (Tick one)
 - Piped to school
 - Protected well
 - Rainwater collection
 - Bottled water
 - Other
 - None
2. Is the water source functional (operational)? Yes No
3. How often is the water source functional? 1-2 hours a day 2-4 hours a day More than 4 hours a day
4. What type of toilet facilities are in the school? (Tick all that apply)
 - Flush
 - Ventilated (circulated air) Improved Pit (VIP)
 - Pit toilet with slab/covered
 - Pit toilet without slab/open pit
 - Other
 - None
5. How many functional toilet compartments are there in the school (Insert numbers)

Girls Toilets			Boys Toilets			Staff Toilets		
Functional	Partially Functional	Non Functional	Functional	Partially Functional	Non Functional	Functional	Partially Functional	Non Functional
6. Does the school have handwashing facilities with both soap and water available? (Tick one)

With water alone			With both soap and water		
Yes		No	Yes	No	

Table 3-1. SDG criteria captured in the existing EMIS supplemental WASH module in Papua New Guinea

WATER		SANITATION			HYGIENE	
Improved	Available	Improved	Single-sex	Usable	Handwashing facilities	Soap
Yes	Yes	Yes	No	Yes	Yes	Yes

In addition to the comprehensive WASH module, the existing EMIS has included some WASH-related questions since 2012 (although results are not included in national education reports). While the existing WASH questions are not aligned with the SDGs, the inclusion of WASH in the EMIS suggests that there is national capacity and interest to monitor WinS through the existing system. Modifications to the existing EMIS questions are recommended based on the supplemental WASH module and the globally recommended questions for SDG monitoring (**Box 3-2**).¹ These are under review by the NDoE for inclusion in the 2016-17 EMIS within the core questionnaire, as opposed to a supplemental question sheet.

Box 3-2. Revised WASH questions included in the 2016-17 EMIS based on aligning with the SDGs for WinS

- Where does the school get most of its drinking water from?
 Town supply Tank water Piped water Bringing water from home
 Well/Spring [protected/unprotected] (circle one) Lake, Creek, River, Stream (circle one) None
- Is drinking water from the above main source currently available at the school? Yes No
- What is the number of toilet type(s) the student use?

	Permanent		Semi-Permanent		Bush Material	
	M	F	M	F	M	F
Septic Toilets (Flush/Pour)						
Shore drop (Solwara)						
Pit Toilets						
<i>Pit with Cover</i>						
<i>Pit without Cover</i>						
<i>Composting Toilet</i>						
None						
Total Toilets						

*If the school has no toilets, please circle none and don't enter any data.

- How many usable toilets does your school have? Only fill in if your school toilets meet the definition of usable.
**Usable means toilets main doors are unlocked, the toilet is not broken, the toilet hole is not blocked, and water is available for flush/pour-flush toilets, and there are closable doors that lock from the inside and no large gaps in the structure at the time of the questionnaire.*

Total Toilets	Male Toilets	Female Toilets	*Common (Shared) Toilets

*Common (Shared) Toilets refers to when a school doesn't have separate toilets for male and female students and just use the same toilet(s)

- Does the school have handwashing facilities with both soap and water available? (Tick one)
 Yes, with both soap and water With water only With soap only No facilities or no soap or water

School funding through the Tuition Fee Free subsidy is dependent on return of the EMIS questionnaire, resulting in a high rate of questionnaire return. However, the validity of data, timely questionnaire return and feedback of results to schools and local government are of concern. Currently hard copy questionnaires are sent to the NDoE in Port Moresby causing significant delays due to PNG's geographical dispersion, and feedback is non-existent hindering evidence-based decision making at Provincial, District & Local level governments.

3.4. Bottlenecks and Opportunities

Bottlenecks

- The supplemental WASH module is not integrated into the national monitoring system; and
- There is limited responsibility within the NDoE for reporting WASH against national standards and targets.

Opportunities

- There is clear responsibility for monitoring WASH in Papua New Guinea: the newly created WASH PMU in the Department of Planning, who will coordinate with the NDoE for monitoring WinS;
- The EMIS Unit of the NDoE is participating in SDG localization and are amicable to aligning with the SDGs; and

- The supplementary EMIS module has permitted calculation of preliminary baseline estimates for basic WinS and if further aligned with the SDGs and integrated into the EMIS, PNG will be able to monitor the SDGs for WinS on an annual basis through the existing national education monitoring system.

3.5. Recommended Next Steps

The following actions are recommended to build on the identified opportunities and address bottlenecks:

1. Continue analysing EMIS WASH data as more questionnaires are returned to finalize a baseline;
2. Update EMIS questions to align with the SDG criteria for WinS, within the existing questionnaire structure;
3. Include WASH in annual national education reports and feed findings back to provinces/districts; and
4. Establish detailed WASH targets in the next National Education Plan (2020-2024).

4. Case Study – Monitoring WASH in Schools in Cambodia

Contributors: Chanthea Chaing, Santepheap Heng, Sam Treglown, Sokhon Nuom and Stina Heikkila (UNICEF)

4.1. National targets and standards

The Government of Cambodia *National Strategic Plan for Rural Water Supply, Sanitation and Hygiene 2014-2025* states that “institutional arrangements, financial, human and other resources are necessary to provide service and to improve public health sustainably. The main objective is to accelerate the progress toward achieving the vision of rural water supply, sanitation and hygiene for all by 2025.”

Within the education sector, specifically, Cambodia has existing national WinS targets for 2018 in the *National Education Strategic Plan (2014-18)*, including that:

- 87% of primary schools have toilets & clean water;
- 60% of primary schools have handwashing facilities; and
- 90% of lower secondary schools and 100% of upper secondary schools have toilets & clean water.

In addition to supporting SDG reporting, more explicit definitions of “toilets and clean water” that are aligned with national standards and SDG criteria may help trigger national response to EMIS monitoring results. Definitions that include the availability and usability of improved facilities, soap and single-sex toilets would better align with the normative human rights criteria which serve as the basis for the SDG indicator definitions.

The national *Minimum Requirements Guideline for WASH in Schools*, endorsed by the government in November 2016, is based on the international three-star approach.⁷ The guidelines and star-ranking criteria reflect the SDG indicators for WinS. Review of EMIS data for WinS, therefore provides an opportunity for alignment with both the SDGs and the Minimum Requirements such that monitoring the criteria for “basic” service in the SDGs is a by-product of monitoring compliance with national Minimum Requirements, not as a goal unto itself.

4.2. Existing national monitoring

National WinS coverage data were reported for Cambodia in the 2015 UNICEF publication *“Advancing WASH in Schools Monitoring”*. The coverage estimates are based on linear regression of data from the national Education Management Information System (EMIS) for six years (2008 through 2013): 66% and 58% of primary schools had a water source in 2008 and 2013⁸, respectively, while 76% and 81% had toilets in 2008 and 2013, respectively. Coverage figures do not include secondary schools; they refer to the proportion of primary schools with access to a water source and the proportion with toilets. Whether services are “improved”², available, single-sex, or usable, is unknown, and handwashing was not reported.

The coverage estimates in *Table 4-1* are based on EMIS data from the 2015-16 public dataset.⁹ However, based on the questionnaire, there are more data collected that could provide additional information related to the SDG criteria, including the criteria shown in the blank cells in *Table 4-1*.

7 UNICEF/GIZ (2013) Field Guide: Three Star Approach for WASH in Schools.

8 According to notes in the UNICEF Country Office Annual Reports, there were no clear reasons for the decrease in water coverage, but it may be due to “1) a better capacity to monitor the situation and 2) possibly many new schools being built without WASH facilities. We also know that investments in O&M or recurrent costs is low. Most of Ministry of Rural Development’s investments are in new construction over repairs.” As a follow-on, the MoF allotted a budget to the School Health Department in the MoE to provide rehabilitation support to over 200 schools’ WASH facilities in 2016.

9 Private schools, which make up less than 3% of schools in Cambodia, are not included in the EMIS figures.

Table 4-1. Percentage of primary and secondary schools with water, sanitation and handwashing (Year = 2015/16)

% of schools		National	Urban	Rural	Pre-primary	Primary	Secondary
Water	With water source	56.2	55.2	56.3		58.1	48.3
	With improved water source						
Sanitation	With toilets	86.9	92.8	86.2		85.9	91.0
	With single-sex toilets						
	With toilets in use						
Hand-washing	With handwashing facilities						
	With soap						

4.3. Opportunities to align the existing monitoring systems with the SDGs

There are two national monitoring mechanisms that include WinS: the EMIS (*Box 4-1*), and the Commune Database (CDB). The EMIS is more appropriate for SDG reporting of WinS being within the responsible line ministry. However, the CDB data provide an opportunity to verify the EMIS data for questions that are similar between each source. The questionnaires for each are compared against the SDG criteria in *Table 4-2* to identify gaps. Based on the 2015/16 EMIS questionnaire, Cambodia can provide baseline data for five of the seven SDG criteria for “basic” WASH services in schools. The two missing criteria are if water is available and if toilets are of an improved type. Further alignment of the “improved” water source criteria may also strengthen the national system: the response categories currently group “wells” into one category, limiting the ability to accurately calculate the proportion of schools with an “improved” water source, since this may include protected and unprotected wells.

Box 4-1. Questions in the 2015/16 Cambodia EMIS

	Circle	General Condition	
Drinking water	Yes No	Clean Not clean	
Washing place	Yes No	Have soap Don't have soap	

Utilities	Teachers' Toilet (M)	Teachers' Toilet (F)	Mixed (M&F)	Boys' Toilets	Girls' Toilets	Mixed (B&G)	Mixed All
Total							
Number in use							

Water Source	Exists	General Condition	
Taps	Yes No	Clean Not clean	
Wells/Pumps	Yes No	Clean Not clean	
Pond	Yes No	Clean Not clean	
Lake	Yes No	Clean Not clean	
Stream/River	Yes No	Clean Not clean	

Table 4-2. The inclusion of SDG criteria for WinS in existing monitoring systems

	WATER		SANITATION			HYGIENE	
	Improved	Available	Improved	Single-sex	Usable	Handwashing facilities	Soap & water
EMIS	Yes (limited)	No	No	Yes	Yes	Yes	Yes (soap)
CDB	Yes	No	Yes	Yes	No	No	No

The CDB includes three of the seven criteria: “improved” water source, “improved” toilets, and single-sex toilets (*Table 4-2*). Comparing 2015 data for primary schools from the EMIS and CDB, coverage estimates are roughly similar: the EMIS reports that 58% and 86% of primary schools have water and toilets, respectively, while the CDB reports that 68% of primary schools have an “improved” water source and 84% have toilets.

Recommended core questions for monitoring WinS in the SDGs have been agreed upon by a global expert task team convened by the JMP.¹ The current EMIS questionnaire offers a good starting point for aligning with

recommended core questions for SDG reporting and the National Minimum Requirements for WinS since a number of WASH questions are already included. The EMIS department is participating in the SDG localization process at the national level and are open to aligning questions with the SDG criteria and the globally recommended core questions. Based on country consultations, questions can be easily changed within the existing layout, but if layout changes are needed, more resources will be required. The introduction of the SDGs may provide an opportunity to update WASH questions in the EMIS since other indicators under Goal 4 (Education) may also require updates to the EMIS.

If layout changes are not possible, the questions in Box 4-2 would maintain the current layout. Specific wording may need to be further localized (e.g. “flush/pour-flush” may be “water toilet”). The question regarding drinking water treatment is not needed for SDG reporting on “basic” service, and could be focused on group handwashing facilities or other national priority. Additional questions beyond those needed to monitor “basic” service for the SDGs, can be used to monitor a nationally defined “advanced” level (*Figure 1-1*), based on the National Minimum Requirements. Due to the limitations of self-report monitoring tools, questions about hygiene behaviour are not recommended for the EMIS. If layout changes are possible, questions could be further aligned by including bottled water as an option in 5.F., adding urinals under utilities, expanding on drinking water treatment options, and adding a question about group handwashing stations.

Box 4-2. Proposed modified questions to align with the SDGs and National Minimum Requirements (if layout changes are not possible)

	Circle	General Condition
Drinking water	Treated at school Not treated at school	Available at all times Not available at all times
Handwashing place	Yes No	With soap & water today With only water today

Utilities	Flush / Pour-flush	Pit latrine with slab	Open pit / Hole	Boys' Toilets	Girls' Toilets	Mixed (B&G)	Teachers' Toilets (if separate)
Total number							
Number usable (accessible, functional, private)							

Water Source	1. Exists	2. Currently available
5.F.a. Piped water	Yes No	Yes No
5.F.b. Covered Wells/Pumps	Yes No	Yes No
5.F.c. Rainwater	Yes No	Yes No
5.F.d. Open Dug Wells	Yes No	Yes No
5.F.e. Lake/Pond/River/Stream	Yes No	Yes No

4.4. Bottlenecks and Opportunities

Bottlenecks

- The majority of WASH data collected through the EMIS are not analysed or reported; and
- There is a focus on infrastructure presence or quantity, but not on quality or functionality in existing national monitoring and targets.

Opportunities

- The EMIS department is participating in SDG localization and are open to questionnaire changes;
- The current EMIS questionnaire contains many SDG indicators and provides a good starting point, including historical data for some aspects of WASH service;
- The CDB may provide an opportunity to cross-check EMIS results if questions can be aligned with EMIS / SDGs; and
- The current implementation of the endorsed National Minimum Requirements for WASH in schools, and its planned alignment with EMIS, provides an opportunity to incorporate SDG criteria into EMIS.

4.5. Recommended Next Steps

The following actions are recommended to build on the identified opportunities and address bottlenecks:

1. Analyse the 2015/16 EMIS data for WASH beyond the presence of a water source and presence of toilets, including basic hygiene, an estimate for basic sanitation (considering toilet type is not monitored), and an estimate of the proportion of schools with an “improved” water source;
2. Include results from all WASH questions in national education reporting, beyond the presence of water and sanitation infrastructure;
3. Update the EMIS questionnaire to align with the SDG criteria for WinS, considering national context and priorities, in particular the Minimum Requirements for WASH in schools;
4. Update the CDB questionnaire to align with the EMIS and SDG criteria;
5. Create feedback mechanisms to timely inform decisions at school, district and provincial level; and
6. Establish more detailed WASH targets in the National Education Strategic Plan (2019-2023).

